



**DATA VALIDATION
MOAB SITE
MOAB, UTAH**

**March 2002
Water Sampling**

Prepared by the
U.S. Department of Energy
Grand Junction Office



MOAB, UTAH

March 2002

DATA PACKAGE CONTENTS

This data package includes the following information:

Item No. Description of Contents

1. **Site Hydrologist Summary**
2. **Data Package Assessment**, which includes the following:
 - a. Field procedures verification checklist
 - b. Confirmation that chain-of-custody was maintained.
 - c. Confirmation that holding time requirements were met.
 - d. Evaluation of the adequacy of the QC sample results.
3. **Data Assessment Summary**, which describes problems identified in the data validation process and summarizes the validator's findings.
4. **UMTRA Database Printouts**
 - a. Ground-Water Quality Data
 - b. Surface-Water Quality Data
 - c. Equipment Blank Data
 - d. Water Level Data
 - Static Ground Water Levels
 - Ground Water Surface Elevation Contour Map
5. **Sampling and Analysis Work Order and Trip Report.**

Site Hydrologist Summary

Site: Moab, Utah

Sampling Period: March 11 to March 15, 2002

SUMMARY CRITERIA

- 1. Did concentrations in water from any domestic wells sampled exceed a ground water standard, primary drinking water standard, or health advisory?**

Domestic wells were not sampled during this event.

- 2. Were standards exceeded at any point-of-compliance wells?**

There are no point-of-compliance wells established at the Moab site.

- 3. As a result of this sampling round, is there any indication of unexpected contaminated ground water movement?**

DOE is currently in the process of assessing baseline conditions at the Moab site. This sampling event was the second conducted by DOE; therefore, historical data is not readily available to determine if there was unexpected contaminated ground water movement. DOE is currently reviewing and formatting historical data provided by Sheppard-Miller Inc. in order to incorporate the data into the Site Environmental Evaluation database. Contaminant plume movement, therefore, will be addressed as historical data is available, and the conceptual site model is developed. Volatile organic compounds (VOC) were analyzed in the sample collected from well ATP-2-S; all VOC concentrations were below detection. Wells with sample concentrations that exceeded UMTRA ground water standards are listed in Table 1.

A surface contour map of ground water elevations for the alluvial flow system is attached. The network of wells used to construct ground water surface contour map is provisional and will evolve as DOE continues to assess the usefulness of historical wells and as new wells are added to the network.

Site Hydrologist Summary (continued)

4. Is there statistical evidence that UMTRA Project related contaminants were detected in a surface water body in greater concentrations than upstream ambient water quality?

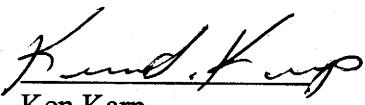
As with ground water, a more complete assessment of impacts to surface water will be addressed as new data is collected and analyzed, and the conceptual site mode is developed. A statistical comparison to upstream analyte concentrations will be conducted when historical data is available for use. A cursory examination of the results from this sampling event indicate that all samples collected from the Colorado River adjacent to and downstream of the site have ammonium concentrations greater than the concentration reported for the upstream location (CR-1). In addition, uranium concentrations at several locations adjacent to the site are elevated compared to the upstream concentration.

Table 1. Moab Wells with Samples that Exceeded UMTRA Project Standards in March 2002.

ANALYTE	STANDARD ¹	WELLS EXCEEDING STANDARDS (CONCENTRATION ¹)
Molybdenum	0.100	AMM-2 (1.18), AMM-3 (0.467), ATP-2-S (0.758), MW-3 (1.13), TP-02 (0.649), TP-07 (0.290), TP-08 (0.920), TP-09 (0.841)
Net Alpha ²	15 (pCi/L)	AMM-3 (261.9), ATP-2-S (1438.4), MW-3 (60.6), TP-02 (6,305.1), TP-07 (859.9), TP-08 (860.9)
Nitrate	44.27	AMM-2 (170), MW-3 (231), TP-09 (360)
Radium-226 + 228	5	MW-3 (5.08)
Selenium	0.010	AMM-1 (0.015), AMM-2 (0.0115), TP-01 (0.0118), TP-09 (0.0393)
Uranium	0.044	AMM-2 (2.66), AMM-3 (1.90), ATP-2-S (2.88), MW-3 (3.62), TP-01 (0.22), TP-02 (18.5), TP-07 (2.66), TP-08 (2.59), TP-09 (4.14)

¹ Standards are listed in 40 CFR 192.02 Table 1 to subpart A; units are in mg/L for metals and nitrate, and pCi/L for net alpha and radium isotopes.

² Uranium concentrations were converted to activity using the conversion factor of 687 pCi/mg and were subtracted from the gross alpha results in order to derive net alpha, which excludes uranium and radon.


Ken Karp
Site Hydrologist

6/25/02
Date

DATA ASSESSMENT

UGW Water Sampling Field Activities Verification Checklist

Project Moab
Date(s) of Verification 6-13-02

Date(s) of Water Sampling 3-11 to 3-15-02
Name of Verifier Sam Campbell

1. Is the SAP the primary document directing field procedures?
List other documents, SOP's, instructions.
2. Were the sampling locations specified in the planning documents sampled?
3. Was a pre-trip calibration conducted as specified in the above named documents?
4. Was an operational check of the field equipment conducted twice daily?
Did the operational checks meet criteria?
5. Were the number and types (alkalinity, temperature, Ec, pH, turbidity, DO, ORP) of field measurements taken as specified?
6. Was the Category of the well documented?
7. Were the following conditions met when purging a Category I well?
Were two pump/tubing volumes purged prior to sampling?
Did the water level stabilize prior to sampling?
Was a turbidity of less than 10 NTUs obtained prior to sampling?
Was the flow rate less than 500 mL/min?
If a portable pump was used, was there a 4 hour delay between pump installation and sampling?
8. Were the following conditions met when purging a Category II well?
Was the flow rate less than 100 mL/min?

Response Comments
(Yes, No, N/A)

Yes

Sampling work order dated 3-4-02

Yes

Except well TP-03 - missing

Yes

Ec-ok, ORP-failed all, turbidity-failed all, pH-failed 3

No

Except no alkalinity at CR4- Titrator broke

Yes

with one exception noted below

Yes

Yes

Yes

Yes

Except at well AMM3

NA

NA

NA

UGW Water Sampling Field Activities Verification Checklist (continued)

Were two pump/tubing volumes removed prior to sampling?	<u>NA</u>	
Were water levels documented during the purge?	<u>NA</u>	
9. Were duplicates taken at a frequency of one per 20 samples for ground water and surface water?	<u>Yes</u>	
10. Were equipment blanks taken at a frequency of one per 20 samples that were collected with nondedicated equipment?	<u>Yes</u>	
11. Were trip blanks prepared and included with each shipment of VOC samples?	^{1c 6-13-02} <u>NA</u> <u>No</u>	
12. Were QC samples assigned a fictitious site identification number?	<u>Yes</u>	
Was the true identity of the samples recorded on the Quality Assurance Sample Log?	<u>Yes</u>	
13. Were samples collected in the containers specified?	<u>Yes</u>	
14. Were samples filtered and preserved as specified?	<u>Yes</u>	
15. Were the number and types of samples collected as specified?	<u>Yes</u>	
16. Were chain of custody records completed and was sample custody maintained?	<u>Yes</u>	
17. Are field data sheets signed and dated by both team members?	<u>No</u>	
18. Was all other pertinent information documented on the field data sheets?	<u>Yes</u>	
19. Was the presence or absence of ice in the cooler documented at every sample location?	<u>Yes</u>	
20. Were water levels measured at the locations specified in the planning documents?	<u>Yes</u>	

Boron was analyzed instead of barium.

Many have only one signature

Except wells on top of the piles - contamination concerns

DATA PACKAGE ASSESSMENT

REQUISITION NUMBERS: 17880 SITE: Moab LABORATORY: GJO ANALYSIS DATES: 3/18 to 4/17-02
 REVIEWER: Sam Campbell SIGNATURE: Sam Campbell DATE: 6-12-02
 NAME (print) SIGNATURE DATE

	ICP-MS	ICP-AES	QAFA Cold vapor Hg	FAA	NaBH ₄	AS	LSc	PC	IC	Gravimetric	Colorimetric	Other GC/MS
CHAIN OF CUSTODY	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>NA</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>
HOLDING TIME	<u>OK</u>	<u>OK</u>	<u>OK</u>		<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>
CALIB. VERIFICATION (For AS, internal tracer)	<u>OK</u>	<u>OK</u>	<u>OK</u>		<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>NA</u>	<u>OK</u>	<u>OK</u>
PREP. BLANKS (Only if digestion)	<u>OK</u>	<u>NA</u>	<u>OK</u>		<u>NA</u>	<u>OK</u>	<u>OK</u>	<u>①</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>OK</u> - method blank
INT/CONT CAL. BLANKS	<u>②</u>	<u>③</u>	<u>OK</u>	<u>✓</u>	<u>OK</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>④</u>	<u>NA</u>	<u>⑤</u>	<u>OK</u> - Surrogate recovery
ICP SERIAL DILUTION	<u>⑥</u>	<u>OK</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>OK</u> - Internal standard
ICS (ICP only)	<u>NA</u>	<u>OK</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
LAB. CONTROL SAMPLE	<u>OK</u>	<u>OK</u>	<u>OK</u>		<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>
DUPLICATES	<u>OK</u>	<u>OK</u>	<u>OK</u>		<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u> - matrix spike duplicate
POSTDIGEST. SPKS. (Only if MS fails)	<u>NA</u>	<u>NA</u>	<u>NA</u>		<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
MATRIX SPKS.	<u>OK</u>	<u>OK</u>	<u>OK</u>		<u>OK</u>	<u>NA</u>	<u>NA</u>	<u>⑦</u>	<u>OK</u>	<u>NA</u>	<u>OK</u>	<u>OK</u>
OVERALL ASSESS.	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>✓</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>	<u>OK</u>

REVIEWER COMMENTS:

③ B detected in CCRs - no samples affected and K. ④ SO₄ detected in one CCB - no samples affected.

ITEMS REQUIRING ATTENTION:

① U flag gross d results ~~286135~~^{1C6-13-02} 286474, and gross β results ~~286135~~^{1C6-13-02}, 136, 469, 474, 475, 477-483, and 487 because of prep blank contamination. ② U flag all Pb results; TL results 286460-462, 467, 469, 470, 474, 477, 479, 480-484, and 487; and U results 286488 and 489. ③ U flag the following results: Fe-286460-474, 476, 479-481, 486, 488; Mn-286489; Mo-462-468, 471; Na-489; Sr-489; and Zn-485, 488. ⑤ U flag NH₄ result 286460. ⑥ J flag U results because of serial dilution. ⑦ J flag gross d results ~~286135~~^{1C6-13-02} 137, 469, 474-483, 485, 487, 489.

MOAB, UTAH
MARCH 2002 SAMPLING EVENT
DATA ASSESSMENT SUMMARY

The DOE-GJO Analytical Laboratory analyzed samples and reported results for this sampling event under requisition number 17880 for the Moab project.

RADIOLOGICAL ANALYSES

The determination of gross alpha was performed by gas proportional counting (PC). Lead-210, radium-226, and radium-228 were determined using liquid scintillation spectrometry (LSc). Polonium-210 was determined using alpha spectrometry (AS), and thorium-230 was determined by inductively coupled plasma-mass spectrometry (ICP-MS). The detection limits for gross alpha and gross beta are higher than those specified in the planning documents due to high TDS in the samples.

Radiological results that were less than the minimum detectable activity (MDA) and/or the 3-sigma counting statistic range (3σ) were qualified with a "U" flag (nondetect) in the database. These flags are listed in the data qualifiers column in the database printouts.

Numerous gross alpha and gross beta results were qualified with a "U" flag in the database because of prep blank contamination. Selected gross alpha results were qualified with a "J" flag (estimated) in the database because of matrix spike recovery. Qualified results are listed on the *Data Package Assessment* form, and the flags are listed in the data qualifiers column in the database printouts.

METALS/MAJOR CATIONS ANALYSES

The determination of boron, calcium, chromium, copper, iron, magnesium, manganese, molybdenum, nickel, potassium, sodium, strontium, vanadium, and zinc was performed by inductively coupled plasma-atomic emission spectrometer (ICP-AES). Antimony, cadmium, lead, silver, thallium, and uranium were analyzed by ICP-MS. Arsenic and selenium were analyzed by hydride generation atomic absorption spectroscopy (NaBH_4). Mercury was determined by cold vapor atomic absorption spectrometry.

Numerous metal results were qualified with "U" flags in the database because of CCB contamination. All uranium results were qualified with a "J" flag in the database because the serial dilution did not meet criteria. Qualified results are listed on the *Data Package Assessment* form, and the flags are listed in the data qualifiers column in the database printouts.

INORGANIC ANALYSES

Chloride, nitrate, and sulfate were determined by ion chromatography (IC). Ammonium was determined by spectrophotometry (colorimetry), and TDS was determined gravimetrically.

The ammonium result from CR1 was qualified with a "U" flag in the database because of CCB contamination.

ORGANIC ANALYSES

The determination of volatile organic compounds was conducted by gas chromatography/mass spectrometry (GC/MS). Data validation qualifiers were not required for these analyses.

FIELD ANALYSIS/ACTIVITIES

Results from all wells were qualified with an "F" flag in the database indicating that the wells were purged and sampled using the low-flow method. Results from well W1- 4.3 were qualified with a "Q" flag in the database indicating that the data is considered qualitative due to the sampling technique.

Two equipment blanks were collected for the 26 locations where samples were collected using non-dedicated equipment. The equipment blanks were analyzed for the same constituents as the Moab environmental samples. Concentrations of site contaminants in the equipment blanks were below their respective contract required detection limit (CRDL) or MDA/3 σ ; therefore, equipment blank results are acceptable.

Two field duplicate samples were collected for the 26 locations sampled. Duplicate samples were collected from well AMM-1 and surface water location CR-5. There are no established regulatory criteria for the evaluation of field duplicate samples; therefore, EPA guidance for *laboratory* duplicates (which is conservative for field duplicates) was used to assess the precision of the field duplicates. Duplicate results met the laboratory duplicate criteria (20 RPD) and are considered acceptable. A trip blank was not collected during this event.

SUMMARY

All analytical quality control criteria were met except as qualified on the Ground Water Quality Data by Parameter, Surface Water Quality by Parameter, or equipment/trip blank database printouts. The meaning of data qualifiers is defined on the UMTRA database printouts or defined in the USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis, Multi-Media Multi-Concentration, Document Number ILMO2.0, 1991. All data in this package are considered validated and may be treated as final results.

Sam Campbell

Sam Campbell
Data Validation Lead

6-14-02

Date

WATER QUALITY DATA

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:54 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE:		ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID				LAB	DATA	QA		
1,1,1,2-Tetrachloroethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,1,1-Trichloroethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,1,2,2-Tetrachloroethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,1,2-Trichloroethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,1-Dichloroethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,1-Dichloroethene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,1-Dichloropropene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,2,3-Trichloropropane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,2,4-Trimethylbenzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,2-Dibromo-3-chloropropane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		10	U	F	#	10	-
1,2-Dibromoethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,2-Dichlorobenzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,2-Dichloroethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,2-Dichloropropane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,3,5-Trimethylbenzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,3-Dichlorobenzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,3-Dichloropropane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
1,4-Dichlorobenzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
2,2-Dichloropropane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
2-Butanone	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		20	U	F	#	20	-
2-Chlorotoluene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA QA	DETECTION LIMIT	UN-CERTAINTY
2-Hexanone	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		20	U	F	#	20
4-Chlorotoluene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5
4-Methyl-2-Pentanone	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		20	U	F	#	20
Acetone	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		20	U	F	#	20
Alkalinity, Total (As CaCO ₃)	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	137		F	#	-
	mg/L	AMM-2	WL	03/13/2002	0001	AL		1074		F	#	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	954		F	#	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		794		F	#	-
	mg/L	MW-3	WL	03/13/2002	0001			1353		F	#	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		207		F	#	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		189		F	#	-
	mg/L	TP-02	WL	03/12/2002	0001	AL		637		F	#	-
	mg/L	TP-07	WL	03/13/2002	0001	AL		884		F	#	-
	mg/L	TP-08	WL	03/13/2002	0001	AL		889		F	#	-
	mg/L	TP-09	WL	03/13/2002	0001	AL		1084		F	#	-
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		109		FQ	#	-
Ammonium	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.0042	U	F	#	0.0042
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0042	U	F	#	0.0042
	mg/L	AMM-2	WL	03/13/2002	0001	AL		1210.000		F	#	0.0042
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	135.000		F	#	0.0042
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		1260.000		F	#	0.0042
	mg/L	MW-3	WL	03/13/2002	0001			1190.000		F	#	0.0042
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.197		F	#	0.0042
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.0042	U	F	#	0.0042
	mg/L	TP-02	WL	03/12/2002	0001	AL		1.150		F	#	0.0042

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA QA	DETECTION LIMIT	UN-CERTAINTY	
Ammonium	mg/L	TP-07	WL	03/13/2002	0001	AL		92.200	F	#	0.0042	-	
	mg/L	TP-08	WL	03/13/2002	0001	AL		433.000	F	#	0.0042	-	
	mg/L	TP-09	WL	03/13/2002	0001	AL		715.000	F	#	0.0042	-	
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.0371	B	FQ	#	0.0042	-
Antimony	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.0005	U	F	#	0.0005	-
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0005	U	F	#	0.0005	-
	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.0005	U	F	#	0.0005	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.0005	U	F	#	0.0005	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.0005	U	F	#	0.0005	-
	mg/L	MW-3	WL	03/13/2002	0001			0.0005	U	F	#	0.0005	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0005	U	F	#	0.0005	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.0005	U	F	#	0.0005	-
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.0005	U	F	#	0.0005	-
	mg/L	TP-07	WL	03/13/2002	0001	AL		0.0005	U	F	#	0.0005	-
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.0005	U	F	#	0.0005	-
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.0005	U	F	#	0.0005	-
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.0005	U	FQ	#	0.0005	-
Arsenic	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.0006	U	F	#	0.0006	-
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0006	U	F	#	0.0006	-
	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.001	B	F	#	0.0006	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.0025	B	F	#	0.0006	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.00062	B	F	#	0.0006	-
	mg/L	MW-3	WL	03/13/2002	0001			0.00097	B	F	#	0.0006	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0071	F	#	0.0006	-	
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.0018	B	F	#	0.0006	-
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.0026	B	F	#	0.0006	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS:			UN-CERTAINTY
									LAB	DATA	QA	
Arsenic	mg/L	TP-07	WL	03/13/2002	0001	AL		0.0006	U	F	#	0.0006
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.0006	U	F	#	0.0006
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.0018	B	F	#	0.0006
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.0006	U	FQ	#	0.0006
Benzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5
Boron	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.477		F	#	0.0038
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.499		F	#	0.0038
	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.672		F	#	0.0038
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	1.000		F	#	0.0038
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.664		F	#	0.0038
	mg/L	MW-3	WL	03/13/2002	0001			1.170		F	#	0.0038
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0975	B	F	#	0.0038
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.371		F	#	0.0038
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.295		F	#	0.0038
	mg/L	TP-07	WL	03/13/2002	0001	AL		1.140		F	#	0.0038
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.922		F	#	0.0038
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.685		F	#	0.0038
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.395	B	FQ	#	0.019
Bromobenzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5
Bromoform	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5
Bromochloromethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5
Bromodichloromethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5
Bromomethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		10	U	F	#	10
Cadmium	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.0002	U	F	#	0.0002

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Cadmium	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0002	U	F	#	0.0002	-
	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.0024		F	#	0.0002	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.00042	B	F	#	0.0002	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.0012		F	#	0.0002	-
	mg/L	MW-3	WL	03/13/2002	0001			0.0014		F	#	0.0002	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0002	U	F	#	0.0002	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.0002	U	F	#	0.0002	-
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.00052	B	F	#	0.0002	-
	mg/L	TP-07	WL	03/13/2002	0001	AL		0.0002	U	F	#	0.0002	-
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.0012		F	#	0.0002	-
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.0011		F	#	0.0002	-
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.0002	U	FQ	#	0.0002	-
Calcium	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	226.000		F	#	0.0662	-
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	224.000		F	#	0.0662	-
	mg/L	AMM-2	WL	03/13/2002	0001	AL		428.000		F	#	0.0662	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	480.000		F	#	0.0662	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		494.000		F	#	0.0662	-
	mg/L	MW-3	WL	03/13/2002	0001			438.000		F	#	0.0662	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		720.000		F	#	0.662	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		375.000		F	#	0.0662	-
	mg/L	TP-02	WL	03/12/2002	0001	AL		283.000		F	#	0.0662	-
	mg/L	TP-07	WL	03/13/2002	0001	AL		487.000		F	#	0.0662	-
	mg/L	TP-08	WL	03/13/2002	0001	AL		477.000		F	#	0.0662	-
	mg/L	TP-09	WL	03/13/2002	0001	AL		426.000		F	#	0.0662	-
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		2370.000		FQ	#	0.331	-
Carbon tetrachloride	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA QA	DETECTION LIMIT	UN-CERTAINTY	
Chloride	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	3350.000	F	#	1.87	-	
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	3470.000	F	#	3.74	-	
	mg/L	AMM-2	WL	03/13/2002	0001	AL		2360.000	F	#	7.48	-	
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	1220.000	F	#	3.74	-	
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		4070.000	F	#	3.74	-	
	mg/L	MW-3	WL	03/13/2002	0001			4040.000	F	#	18.7	-	
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		902.000	F	#	1.87	-	
	mg/L	TP-01	WL	03/12/2002	0001	AL		5040.000	F	#	3.74	-	
	mg/L	TP-02	WL	03/12/2002	0001	AL		493.000	F	#	3.74	-	
	mg/L	TP-07	WL	03/13/2002	0001	AL		2230.000	F	#	3.74	-	
	mg/L	TP-08	WL	03/13/2002	0001	AL		2560.000	F	#	3.74	-	
	mg/L	TP-09	WL	03/13/2002	0001	AL		1520.000	F	#	3.74	-	
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		29200.000	FQ	#	18.7	-	
Chlorobenzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
Chlorodibromomethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
Chloroethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		10	U	F	#	10	-
Chloroform	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
Chloromethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		10	U	F	#	10	-
Chromium	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.0006	U	F	#	0.0006	-
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0006	U	F	#	0.0006	-
	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.0006	U	F	#	0.0006	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.0006	U	F	#	0.0006	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.0006	U	F	#	0.0006	-
	mg/L	MW-3	WL	03/13/2002	0001			0.0006	U	F	#	0.0006	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0006	U	F	#	0.0006	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE DATE	SAMPLE ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA QA	DETECTION LIMIT	UN-CERTAINTY
Chromium	mg/L	TP-01	WL	03/12/2002	0001	AL		0.0006	U	F	#	0.0006
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.0006	U	F	#	0.0006
	mg/L	TP-07	WL	03/13/2002	0001	AL		0.0006	U	F	#	0.0006
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.0006	U	F	#	0.0006
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.0006	U	F	#	0.0006
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.003	U	FQ	#	0.003
cis-1,2-Dichloroethene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5
cis-1,3-Dichloropropene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5
Copper	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.001	B	F	#	0.0006
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0006	U	F	#	0.0006
	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.0096	B	F	#	0.0006
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.0008	B	F	#	0.0006
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.00099	B	F	#	0.0006
	mg/L	MW-3	WL	03/13/2002	0001			0.0023	B	F	#	0.0006
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0011	B	F	#	0.0006
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.0014	B	F	#	0.0006
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.0022	B	F	#	0.0006
	mg/L	TP-07	WL	03/13/2002	0001	AL		0.0006	U	F	#	0.0006
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.0024	B	F	#	0.0006
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.008	B	F	#	0.0006
Dibromomethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5
Ethylbenzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5
Gross Alpha	pCi/L	AMM-1	WL	03/13/2002	0001	AL	B	53.77	UB	JF	#	53.77 ± 29.3
	pCi/L	AMM-1	WL	03/13/2002	0002	AL	B	53.49	UB	JF	#	53.49 ± 29.4

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE:		ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID				LAB	DATA	QA		
Gross Alpha	pCi/L	AMM-2	WL	03/13/2002	0001	AL		1464.82	B	JF	#	126.74	± 163.
	pCi/L	AMM-3	WL	03/13/2002	0001	AL	D	1567.17	B	JF	#	115.39	± 160.
	pCi/L	ATP-2-S	WL	03/14/2002	0001	AL		3416.93	B	JF	#	123.39	± 237.
	pCi/L	MW-3	WL	03/13/2002	0001			2547.59	B	JF	#	228.96	± 292.
	pCi/L	N2-12.8	WL	03/14/2002	0001	NR		30.9	UB	JF	#	30.9	± 16.4
	pCi/L	TP-01	WL	03/12/2002	0001	AL		156.6	B	UJF	#	102.63	± 71.0
	pCi/L	TP-02	WL	03/12/2002	0001	AL		19014.58	B	JF	#	48.32	± 426.
	pCi/L	TP-07	WL	03/13/2002	0001	AL		2687.34	B	JF	#	123.39	± 212.
	pCi/L	TP-08	WL	03/13/2002	0001	AL		2640.28	B	JF	#	123.01	± 210.
	pCi/L	TP-09	WL	03/13/2002	0001	AL		2506.31	B	JF	#	119.7	± 201.
Gross Beta	pCi/L	AMM-1	WL	03/13/2002	0001	AL	B	55.16	B	UF	#	42.33	± 26.5
	pCi/L	AMM-1	WL	03/13/2002	0002	AL	B	55.6	B	UF	#	42.32	± 26.5
	pCi/L	AMM-2	WL	03/13/2002	0001	AL		769.19	B	UF	#	110.86	± 89.9
	pCi/L	AMM-3	WL	03/13/2002	0001	AL	D	538.76	B	UF	#	111.25	± 82.8
	pCi/L	ATP-2-S	WL	03/14/2002	0001	AL		841.43	B	UF	#	118.04	± 95.1
	pCi/L	MW-3	WL	03/13/2002	0001			1099.92	B	UF	#	220.15	± 165.
	pCi/L	N2-12.8	WL	03/14/2002	0001	NR		26.3	UB	F	#	26.3	± 15.9
	pCi/L	TP-01	WL	03/12/2002	0001	AL		179.88	B	UF	#	84.97	± 55.8
	pCi/L	TP-02	WL	03/12/2002	0001	AL		3956.73	B	F	#	66.87	± 112.
	pCi/L	TP-07	WL	03/13/2002	0001	AL		755.88	B	UF	#	115.39	± 91.4
Iron	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.0028	B	UF	#	0.001	-
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0037	B	UF	#	0.001	-
	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.0031	B	UF	#	0.001	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	12.500	F	#	0.001	-	

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.341	F	#	0.001	-
	mg/L	MW-3	WL	03/13/2002	0001			4.580	F	#	0.001	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		36.100	F	#	0.001	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.0036	B	UF	#	0.001
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.0166	B	UF	#	0.001
	mg/L	TP-07	WL	03/13/2002	0001	AL		0.389	F	#	0.001	-
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.0474	F	#	0.001	-
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.001	U	F	#	0.001
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		6.960	FQ	#	0.005	-
Isopropylbenzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5
Lead	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.00041	B	UF	#	0.0001
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.00048	B	F	#	0.0001
	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.00051	B	F	#	0.0001
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.00041	B	F	#	0.0001
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.0004	B	F	#	0.0001
	mg/L	MW-3	WL	03/13/2002	0001			0.00046	B	F	#	0.0001
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.00038	B	F	#	0.0001
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.00048	B	UF	#	0.0001
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.00035	B	UF	#	0.0001
	mg/L	TP-07	WL	03/13/2002	0001	AL		0.00051	B	UF	#	0.0001
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.00043	B	UF	#	0.0001
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.00044	B	UF	#	0.0001
Lead-210	pCi/L	AMM-1	WL	03/13/2002	0001	AL	B	1.12	U	F	#	1.12 ± 0.52
	pCi/L	AMM-1	WL	03/13/2002	0002	AL	B	1.07	U	F	#	1.07 ± 0.53
	pCi/L	AMM-2	WL	03/13/2002	0001	AL		1.13	U	F	#	1.13 ± 0.56

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE:		ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID				LAB	DATA	QA		
Lead-210	pCi/L	AMM-3	WL	03/13/2002	0001	AL	D	1.11	U	F	#	1.11	± 0.54
	pCi/L	ATP-2-S	WL	03/14/2002	0001	AL		1.12	U	F	#	1.12	± 0.54
	pCi/L	MW-3	WL	03/13/2002	0001			1.18	U	F	#	1.18	± 0.59
	pCi/L	N2-12.8	WL	03/14/2002	0001	NR		1.1	U	F	#	1.1	± 0.52
	pCi/L	TP-01	WL	03/12/2002	0001	AL		1.12	U	F	#	1.12	± 0.53
	pCi/L	TP-02	WL	03/12/2002	0001	AL		1.14	U	F	#	1.14	± 0.54
	pCi/L	TP-07	WL	03/13/2002	0001	AL		1.13	U	F	#	1.13	± 0.53
	pCi/L	TP-08	WL	03/13/2002	0001	AL		1.15	U	F	#	1.15	± 0.53
	pCi/L	TP-09	WL	03/13/2002	0001	AL		1.12	U	F	#	1.12	± 0.55
Magnesium	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	135.000		F	#	0.0052	-
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	135.000		F	#	0.0052	-
	mg/L	AMM-2	WL	03/13/2002	0001	AL		856.000		F	#	0.052	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	892.000		F	#	0.052	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		805.000		F	#	0.052	-
	mg/L	MW-3	WL	03/13/2002	0001			1400.000		F	#	0.052	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		201.000		F	#	0.0052	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		183.000		F	#	0.0052	-
	mg/L	TP-02	WL	03/12/2002	0001	AL		196.000		F	#	0.0052	-
	mg/L	TP-07	WL	03/13/2002	0001	AL		702.000		F	#	0.052	-
	mg/L	TP-08	WL	03/13/2002	0001	AL		747.000		F	#	0.052	-
	mg/L	TP-09	WL	03/13/2002	0001	AL		913.000		F	#	0.052	-
Manganese	mg/L	W1-4.3	WL	03/14/2002	0001	NR		2290.000		FQ	#	0.026	-
	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.00022	B	UF	#	0.0001	-
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0001	U	F	#	0.0001	-
	mg/L	AMM-2	WL	03/13/2002	0001	AL		7.740		F	#	0.0001	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	3.360		F	#	0.0001	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS:			UN-CERTAINTY
									LAB	DATA	QA	
Manganese	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		4.330	F	#	0.0001	-
	mg/L	MW-3	WL	03/13/2002	0001			8.050	F	#	0.0001	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		2.160	F	#	0.0001	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		1.550	F	#	0.0001	-
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.461	F	#	0.0001	-
	mg/L	TP-07	WL	03/13/2002	0001	AL		4.540	F	#	0.0001	-
	mg/L	TP-08	WL	03/13/2002	0001	AL		2.270	F	#	0.0001	-
	mg/L	TP-09	WL	03/13/2002	0001	AL		6.250	F	#	0.0001	-
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		38.500	FQ	#	0.0005	-
Mercury	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.0002	U	F	#	0.0002
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0002	U	F	#	0.0002
	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.0002	U	F	#	0.0002
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.0002	U	F	#	0.0002
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.0002	U	F	#	0.0002
	mg/L	MW-3	WL	03/13/2002	0001			0.0002	U	F	#	0.0002
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0002	U	F	#	0.0002
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.0002	U	F	#	0.0002
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.0002	U	F	#	0.0002
	mg/L	TP-07	WL	03/13/2002	0001	AL		0.0002	U	F	#	0.0002
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.0002	U	F	#	0.0002
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.0002	U	F	#	0.0002
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.0002	U	FQ	#	0.0002
Methylene chloride	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5
Molybdenum	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.004	B	F	#	0.0018
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0042	B	F	#	0.0018
	mg/L	AMM-2	WL	03/13/2002	0001	AL		1.180	F	#	0.0018	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE DATE	SAMPLE ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA QA	DETECTION LIMIT	UN-CERTAINTY	
Molybdenum	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.467	F	#	0.0018	-	
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.758	F	#	0.0018	-	
	mg/L	MW-3	WL	03/13/2002	0001			1.130	F	#	0.0018	-	
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0018	U	F	#	0.0018	
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.0204	B	F	#	0.0018	
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.649	F	#	0.0018	-	
	mg/L	TP-07	WL	03/13/2002	0001	AL		0.290	F	#	0.0018	-	
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.920	F	#	0.0018	-	
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.841	F	#	0.0018	-	
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.009	U	FQ	#	0.009	-
m-Xylene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		10	U	F	#	10	-
n-Butylbenzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
Nickel	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.0008	U	F	#	0.0008	-
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0008	U	F	#	0.0008	-
	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.0265	B	F	#	0.0008	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.0008	U	F	#	0.0008	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.0116	B	F	#	0.0008	-
	mg/L	MW-3	WL	03/13/2002	0001			0.0055	B	F	#	0.0008	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0008	U	F	#	0.0008	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.0008	U	F	#	0.0008	-
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.0035	B	F	#	0.0008	-
	mg/L	TP-07	WL	03/13/2002	0001	AL		0.0042	B	F	#	0.0008	-
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.0092	B	F	#	0.0008	-
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.0167	B	F	#	0.0008	-
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.004	U	FQ	#	0.004	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Nitrate as NO ₃	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	1.360	F	#	0.0305	-	
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	1.340	F	#	0.0305	-	
	mg/L	AMM-2	WL	03/13/2002	0001	AL		170.000	F	#	0.061	-	
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.0305	U	F	#	0.0305	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.933	B	F	#	0.0305	-
	mg/L	MW-3	WL	03/13/2002	0001			231.000	F	#	0.061	-	
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0305	U	F	#	0.0305	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		26.000	F	#	0.0305	-	
	mg/L	TP-02	WL	03/12/2002	0001	AL		2.060	F	#	0.0305	-	
	mg/L	TP-07	WL	03/13/2002	0001	AL		1.360	F	#	0.0305	-	
	mg/L	TP-08	WL	03/13/2002	0001	AL		21.100	F	#	0.0305	-	
	mg/L	TP-09	WL	03/13/2002	0001	AL		360.000	F	#	0.1525	-	
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.0305	U	FQ	#	0.0305	-
n-Propylbenzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
Oxidation Reduction Potent	mV	AMM-1	WL	03/13/2002	N001	AL	B	114.5	F	#	-	-	
	mV	AMM-2	WL	03/13/2002	N001	AL		138	F	#	-	-	
	mV	AMM-3	WL	03/13/2002	N001	AL	D	-68.8	F	#	-	-	
	mV	ATP-2-S	WL	03/14/2002	N001	AL		0.7	F	#	-	-	
	mV	MW-3	WL	03/13/2002	N001			2	F	#	-	-	
	mV	N2-12.8	WL	03/14/2002	N001	NR		-116	F	#	-	-	
	mV	TP-01	WL	03/12/2002	N001	AL		132	F	#	-	-	
	mV	TP-02	WL	03/12/2002	N001	AL		73.9	F	#	-	-	
	mV	TP-07	WL	03/13/2002	N001	AL		82	F	#	-	-	
	mV	TP-08	WL	03/13/2002	N001	AL		91.8	F	#	-	-	
	mV	TP-09	WL	03/13/2002	N001	AL		111.6	F	#	-	-	
	mV	W1-4.3	WL	03/14/2002	N001	NR		179	FQ	#	-	-	

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
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PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE:		ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID				LAB	DATA	QA		
o-Xylene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
pH	s.u.	AMM-1	WL	03/13/2002	N001	AL	B	7.4		F	#	-	-
	s.u.	AMM-2	WL	03/13/2002	N001	AL		7.02		F	#	-	-
	s.u.	AMM-3	WL	03/13/2002	N001	AL	D	7.08		F	#	-	-
	s.u.	ATP-2-S	WL	03/14/2002	N001	AL		7.05		F	#	-	-
	s.u.	MW-3	WL	03/13/2002	N001			7		F	#	-	-
	s.u.	N2-12.8	WL	03/14/2002	N001	NR		7.1		F	#	-	-
	s.u.	TP-01	WL	03/12/2002	N001	AL		7.51		F	#	-	-
	s.u.	TP-02	WL	03/12/2002	N001	AL		7.09		F	#	-	-
	s.u.	TP-07	WL	03/13/2002	N001	AL		7.07		F	#	-	-
	s.u.	TP-08	WL	03/13/2002	N001	AL		6.98		F	#	-	-
	s.u.	TP-09	WL	03/13/2002	N001	AL		6.94		F	#	-	-
Polonium-210	pCi/L	AMM-1	WL	03/13/2002	0001	AL	B	0.035		UF	#	0.0326	± 0.02
	pCi/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0639	U	F	#	0.0639	± 0.04
	pCi/L	AMM-2	WL	03/13/2002	0001	AL		0.069		F	#	0.045	± 0.03
	pCi/L	AMM-3	WL	03/13/2002	0001	AL	D	0.0991		F	#	0.0972	± 0.06
	pCi/L	ATP-2-S	WL	03/14/2002	0001	AL		0.0696	U	F	#	0.0696	± 0.03
	pCi/L	MW-3	WL	03/13/2002	0001			0.0734		F	#	0.0683	± 0.04
	pCi/L	N2-12.8	WL	03/14/2002	0001	NR		0.0647		F	#	0.0533	± 0.04
	pCi/L	TP-01	WL	03/12/2002	0001	AL		0.0482		F	#	0.0356	± 0.03
	pCi/L	TP-02	WL	03/12/2002	0001	AL		0.0426	U	F	#	0.0426	± 0.03
	pCi/L	TP-07	WL	03/13/2002	0001	AL		0.0606		F	#	0.0261	± 0.03
	pCi/L	TP-08	WL	03/13/2002	0001	AL		0.0598		F	#	0.0251	± 0.03
	pCi/L	TP-09	WL	03/13/2002	0001	AL		0.0533		F	#	0.0245	± 0.02
Potassium	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	50.300		F	#	0.0119	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
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PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	52.700	F	#	0.0119	-	
	mg/L	AMM-2	WL	03/13/2002	0001	AL		220.000	F	#	0.0119	-	
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	167.000	F	#	0.0119	-	
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		132.000	F	#	0.0119	-	
	mg/L	MW-3	WL	03/13/2002	0001			183.000	F	#	0.0119	-	
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		10.900	F	#	0.0119	-	
	mg/L	TP-01	WL	03/12/2002	0001	AL		73.300	F	#	0.0119	-	
	mg/L	TP-02	WL	03/12/2002	0001	AL		21.100	F	#	0.0119	-	
	mg/L	TP-07	WL	03/13/2002	0001	AL		170.000	F	#	0.0119	-	
	mg/L	TP-08	WL	03/13/2002	0001	AL		161.000	F	#	0.0119	-	
	mg/L	TP-09	WL	03/13/2002	0001	AL		183.000	F	#	0.0119	-	
Radium-226	pCi/L	AMM-1	WL	03/13/2002	0001	AL	B	0.16	F	#	0.12	± 0.08	
	pCi/L	AMM-1	WL	03/13/2002	0002	AL	B	0.12	U	F	#	0.12	± 0.07
	pCi/L	AMM-2	WL	03/13/2002	0001	AL		0.17	U	F	#	0.17	± 0.10
	pCi/L	AMM-3	WL	03/13/2002	0001	AL	D	0.16	F	#	0.13	± 0.09	
	pCi/L	ATP-2-S	WL	03/14/2002	0001	AL		0.18	U	F	#	0.18	± 0.10
	pCi/L	MW-3	WL	03/13/2002	0001			2.97	F	#	0.18	± 0.28	
	pCi/L	N2-12.8	WL	03/14/2002	0001	NR		0.14	U	F	#	0.14	± 0.08
	pCi/L	TP-01	WL	03/12/2002	0001	AL		0.09	F	#	0.07	± 0.05	
	pCi/L	TP-02	WL	03/12/2002	0001	AL		0.15	F	#	0.08	± 0.06	
	pCi/L	TP-07	WL	03/13/2002	0001	AL		0.2	F	#	0.08	± 0.06	
	pCi/L	TP-08	WL	03/13/2002	0001	AL		0.17	F	#	0.09	± 0.06	
Radium-228	pCi/L	AMM-1	WL	03/13/2002	0001	AL	B	0.78	U	F	#	0.78	± 0.47
	pCi/L	AMM-1	WL	03/13/2002	0002	AL	B	0.73	U	F	#	0.73	± 0.44

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE:		ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID				LAB	DATA	QA		
Radium-228	pCi/L	AMM-2	WL	03/13/2002	0001	AL		2.03	F	#	0.74	± 0.48	
	pCi/L	AMM-3	WL	03/13/2002	0001	AL	D	0.8	U	F	#	0.8	± 0.48
	pCi/L	ATP-2-S	WL	03/14/2002	0001	AL		2.15	F	#	0.76	± 0.49	
	pCi/L	MW-3	WL	03/13/2002	0001			2.11	F	#	0.81	± 0.52	
	pCi/L	N2-12.8	WL	03/14/2002	0001	NR		0.91	F	#	0.8	± 0.49	
	pCi/L	TP-01	WL	03/12/2002	0001	AL		0.76	U	F	#	0.76	± 0.45
	pCi/L	TP-02	WL	03/12/2002	0001	AL		0.85	U	F	#	0.85	± 0.50
	pCi/L	TP-07	WL	03/13/2002	0001	AL		0.84	U	F	#	0.84	± 0.50
	pCi/L	TP-08	WL	03/13/2002	0001	AL		0.89	F	#	0.85	± 0.52	
	pCi/L	TP-09	WL	03/13/2002	0001	AL		1.61	F	#	0.89	± 0.55	
sec-Butylbenzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
Selenium	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.015	F	#	0.0003	-	
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0155	F	#	0.0003	-	
	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.0115	F	#	0.0003	-	
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.0003	U	F	#	0.0003	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.0027	B	F	#	0.0003	-
	mg/L	MW-3	WL	03/13/2002	0001			0.0019	B	F	#	0.0003	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0003	U	F	#	0.0003	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.0118	F	#	0.0003	-	
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.006	F	#	0.0003	-	
	mg/L	TP-07	WL	03/13/2002	0001	AL		0.0003	U	F	#	0.0003	-
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.00056	B	F	#	0.0003	-
Silver	mg/L	TP-09	WL	03/13/2002	0001	AL		0.0393	F	#	0.0015	-	
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.0003	U	FQ	#	0.0003	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE:		ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID				LAB	DATA	QA		
Silver	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.0001	U	F	#	0.0001	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.0001	U	F	#	0.0001	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.0001	U	F	#	0.0001	-
	mg/L	MW-3	WL	03/13/2002	0001			0.0001	U	F	#	0.0001	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0001	U	F	#	0.0001	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.0001	U	F	#	0.0001	-
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.0001	U	F	#	0.0001	-
	mg/L	TP-07	WL	03/13/2002	0001	AL		0.0001	U	F	#	0.0001	-
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.0001	U	F	#	0.0001	-
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.0001	U	F	#	0.0001	-
Sodium	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	2000.000		F	#	0.084	-
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	2010.000		F	#	0.084	-
	mg/L	AMM-2	WL	03/13/2002	0001	AL		4040.000		F	#	0.42	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	2680.000		F	#	0.084	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		3390.000		F	#	0.084	-
	mg/L	MW-3	WL	03/13/2002	0001			6680.000		F	#	0.42	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		166.000		F	#	0.0042	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		4000.000		F	#	0.42	-
	mg/L	TP-02	WL	03/12/2002	0001	AL		854.000		F	#	0.042	-
	mg/L	TP-07	WL	03/13/2002	0001	AL		3460.000		F	#	0.084	-
	mg/L	TP-08	WL	03/13/2002	0001	AL		3580.000		F	#	0.42	-
	mg/L	TP-09	WL	03/13/2002	0001	AL		2940.000		F	#	0.084	-
Specific Conductance	umhos/cm	AMM-1	WL	03/13/2002	N001	AL	B	11420		F	#	-	-
	umhos/cm	AMM-2	WL	03/13/2002	N001	AL		23990		F	#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
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PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	AMM-3	WL	03/13/2002	N001	AL	D	15360	F	#	-	-	-
	umhos/cm	ATP-2-S	WL	03/14/2002	N001	AL		21460	F	#	-	-	-
	umhos/cm	MW-3	WL	03/13/2002	N001			33330	F	#	-	-	-
	umhos/cm	N2-12.8	WL	03/14/2002	N001	NR		5093	F	#	-	-	-
	umhos/cm	TP-01	WL	03/12/2002	N001	AL		18710	F	#	-	-	-
	umhos/cm	TP-02	WL	03/12/2002	N001	AL		5589	F	#	-	-	-
	umhos/cm	TP-07	WL	03/13/2002	N001	AL		18300	F	#	-	-	-
	umhos/cm	TP-08	WL	03/13/2002	N001	AL		19820	F	#	-	-	-
	umhos/cm	TP-09	WL	03/13/2002	N001	AL		22230	F	#	-	-	-
	umhos/cm	W1-4.3	WL	03/14/2002	N001	NR		69080	FQ	#	-	-	-
Strontium	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	6.050	F	#	0.001	-	-
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	5.980	F	#	0.001	-	-
	mg/L	AMM-2	WL	03/13/2002	0001	AL		12.200	F	#	0.001	-	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	20.200	F	#	0.001	-	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		13.900	F	#	0.001	-	-
	mg/L	MW-3	WL	03/13/2002	0001			12.300	F	#	0.001	-	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		5.970	F	#	0.001	-	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		11.600	F	#	0.001	-	-
	mg/L	TP-02	WL	03/12/2002	0001	AL		6.500	F	#	0.001	-	-
	mg/L	TP-07	WL	03/13/2002	0001	AL		16.000	F	#	0.001	-	-
	mg/L	TP-08	WL	03/13/2002	0001	AL		15.500	F	#	0.001	-	-
	mg/L	TP-09	WL	03/13/2002	0001	AL		11.700	F	#	0.001	-	-
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		55.200	FQ	#	0.01	-	-
Styrene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
Sulfate	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	969.000	F	#	2.05	-	-
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	990.000	F	#	4.1	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE DATE	SAMPLE ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA QA	DETECTION LIMIT	UN-CERTAINTY	
Sulfate	mg/L	AMM-2	WL	03/13/2002	0001	AL		11900.000	F	#	8.2	-	
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	8450.000	F	#	4.1	-	
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		7340.000	F	#	4.1	-	
	mg/L	MW-3	WL	03/13/2002	0001			16900.000	F	#	20.5	-	
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		1650.000	F	#	2.05	-	
	mg/L	TP-01	WL	03/12/2002	0001	AL		3620.000	F	#	4.1	-	
	mg/L	TP-02	WL	03/12/2002	0001	AL		2010.000	F	#	4.1	-	
	mg/L	TP-07	WL	03/13/2002	0001	AL		8420.000	F	#	4.1	-	
	mg/L	TP-08	WL	03/13/2002	0001	AL		9030.000	F	#	4.1	-	
	mg/L	TP-09	WL	03/13/2002	0001	AL		11400.000	F	#	4.1	-	
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		2960.000	FQ	#	20.5	-	
Temperature	C	AMM-1	WL	03/13/2002	N001	AL	B	18.56	F	#	-	-	
	C	AMM-2	WL	03/13/2002	N001	AL		16.28	F	#	-	-	
	C	AMM-3	WL	03/13/2002	N001	AL	D	20.29	F	#	-	-	
	C	ATP-2-S	WL	03/14/2002	N001	AL		16.32	F	#	-	-	
	C	MW-3	WL	03/13/2002	N001			17.84	F	#	-	-	
	C	N2-12.8	WL	03/14/2002	N001	NR		8.79	F	#	-	-	
	C	TP-01	WL	03/12/2002	N001	AL		16.52	F	#	-	-	
	C	TP-02	WL	03/12/2002	N001	AL		15.71	F	#	-	-	
	C	TP-07	WL	03/13/2002	N001	AL		16.06	F	#	-	-	
	C	TP-08	WL	03/13/2002	N001	AL		15.62	F	#	-	-	
	C	TP-09	WL	03/13/2002	N001	AL		15.25	F	#	-	-	
	C	W1-4.3	WL	03/14/2002	N001	NR		12.78	FQ	#	-	-	
tert-Butylbenzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
Tetrachloroethene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE DATE	SAMPLE ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA QA	DETECTION LIMIT	UN-CERTAINTY	
Sulfate	mg/L	AMM-2	WL	03/13/2002	0001	AL		11900.000	F	#	8.2	-	
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	8450.000	F	#	4.1	-	
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		7340.000	F	#	4.1	-	
	mg/L	MW-3	WL	03/13/2002	0001			16900.000	F	#	20.5	-	
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		1650.000	F	#	2.05	-	
	mg/L	TP-01	WL	03/12/2002	0001	AL		3620.000	F	#	4.1	-	
	mg/L	TP-02	WL	03/12/2002	0001	AL		2010.000	F	#	4.1	-	
	mg/L	TP-07	WL	03/13/2002	0001	AL		8420.000	F	#	4.1	-	
	mg/L	TP-08	WL	03/13/2002	0001	AL		9030.000	F	#	4.1	-	
	mg/L	TP-09	WL	03/13/2002	0001	AL		11400.000	F	#	4.1	-	
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		2960.000	FQ	#	20.5	-	
Temperature	C	AMM-1	WL	03/13/2002	N001	AL	B	18.56	F	#	-	-	
	C	AMM-2	WL	03/13/2002	N001	AL		16.28	F	#	-	-	
	C	AMM-3	WL	03/13/2002	N001	AL	D	20.29	F	#	-	-	
	C	ATP-2-S	WL	03/14/2002	N001	AL		16.32	F	#	-	-	
	C	MW-3	WL	03/13/2002	N001			17.84	F	#	-	-	
	C	N2-12.8	WL	03/14/2002	N001	NR		8.79	F	#	-	-	
	C	TP-01	WL	03/12/2002	N001	AL		16.52	F	#	-	-	
	C	TP-02	WL	03/12/2002	N001	AL		15.71	F	#	-	-	
	C	TP-07	WL	03/13/2002	N001	AL		16.06	F	#	-	-	
	C	TP-08	WL	03/13/2002	N001	AL		15.62	F	#	-	-	
	C	TP-09	WL	03/13/2002	N001	AL		15.25	F	#	-	-	
	C	W1-4.3	WL	03/14/2002	N001	NR		12.78	FQ	#	-	-	
tert-Butylbenzene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
Tetrachloroethene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE:		ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID				LAB	DATA	QA		
Thallium	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.00011	B	UF	#	0.0001	-
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.00018	B	UF	#	0.0001	-
	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.0004	B	UF	#	0.0001	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.00012	B	UF	#	0.0001	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.00028	B	UF	#	0.0001	-
	mg/L	MW-3	WL	03/13/2002	0001			0.00012	B	UF	#	0.0001	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0001	U	F	#	0.0001	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.00013	B	UF	#	0.0001	-
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.0001	U	F	#	0.0001	-
	mg/L	TP-07	WL	03/13/2002	0001	AL		0.0001	U	F	#	0.0001	-
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.00023	B	UF	#	0.0001	-
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.0014	B	F	#	0.0001	-
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.00014	B	UFQ	#	0.0001	-
Thorium-230	pCi/L	AMM-1	WL	03/13/2002	0001	AL	B	1.6	U	F	#	1.56	-
	pCi/L	AMM-1	WL	03/13/2002	0002	AL	B	1.6	U	F	#	1.56	-
	pCi/L	AMM-2	WL	03/13/2002	0001	AL		1.6	U	F	#	1.56	-
	pCi/L	AMM-3	WL	03/13/2002	0001	AL	D	1.6	U	F	#	1.56	-
	pCi/L	ATP-2-S	WL	03/14/2002	0001	AL		1.6	U	F	#	1.56	-
	pCi/L	MW-3	WL	03/13/2002	0001			1.6	U	F	#	1.56	-
	pCi/L	N2-12.8	WL	03/14/2002	0001	NR		1.6	U	F	#	1.56	-
	pCi/L	TP-01	WL	03/12/2002	0001	AL		1.6	U	F	#	1.56	-
	pCi/L	TP-02	WL	03/12/2002	0001	AL		1.6	U	F	#	1.56	-
	pCi/L	TP-07	WL	03/13/2002	0001	AL		1.6	U	F	#	1.56	-
	pCi/L	TP-08	WL	03/13/2002	0001	AL		1.6	U	F	#	1.56	-
	pCi/L	TP-09	WL	03/13/2002	0001	AL		1.6	U	F	#	1.56	-
	pCi/L	W1-4.3	WL	03/14/2002	0001	NR		1.6	U	FQ	#	1.56	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE:		ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID				LAB	DATA	QA		
Toluene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
Total 1,2-Dichloroethene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		20	U	F	#	20	-
Total Dissolved Solids	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	7090		F	#	10	-
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	7160		F	#	10	-
	mg/L	AMM-2	WL	03/13/2002	0001	AL		19500		F	#	10	-
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	15500		F	#	10	-
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		16400		F	#	10	-
	mg/L	MW-3	WL	03/13/2002	0001			30000		F	#	10	-
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		3910		F	#	10	-
	mg/L	TP-01	WL	03/12/2002	0001	AL		13400		F	#	10	-
	mg/L	TP-02	WL	03/12/2002	0001	AL		4650		F	#	10	-
	mg/L	TP-07	WL	03/13/2002	0001	AL		16700		F	#	10	-
	mg/L	TP-08	WL	03/13/2002	0001	AL		17000		F	#	10	-
	mg/L	TP-09	WL	03/13/2002	0001	AL		17900		F	#	10	-
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		47800		FQ	#	10	-
Total Xylenes	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		15	U	F	#	15	-
trans-1,2-Dichloroethene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
trans-1,3-dichloropropene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
Trichloroethene	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
Trichlorofluoromethane	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		5	U	F	#	5	-
Turbidity	NTU	AMM-1	WL	03/13/2002	N001	AL	B	8.1		F	#	-	-
	NTU	AMM-2	WL	03/13/2002	N001	AL		0		F	#	-	-
	NTU	AMM-3	WL	03/13/2002	N001	AL	D	0.1		F	#	-	-
	NTU	ATP-2-S	WL	03/14/2002	N001	AL		7.9		F	#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE:		ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS:			UN-CERTAINTY
				DATE	ID				LAB	DATA	QA	
Turbidity	NTU	MW-3	WL	03/13/2002	N001			1.4	F	#	-	-
	NTU	N2-12.8	WL	03/14/2002	N001	NR		7.2	F	#	-	-
	NTU	TP-01	WL	03/12/2002	N001	AL		8.9	F	#	-	-
	NTU	TP-02	WL	03/12/2002	N001	AL		8.2	F	#	-	-
	NTU	TP-07	WL	03/13/2002	N001	AL		8.8	F	#	-	-
	NTU	TP-08	WL	03/13/2002	N001	AL		8.3	F	#	-	-
	NTU	TP-09	WL	03/13/2002	N001	AL		8.6	F	#	-	-
Uranium	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.0058	E	JF	#	0.0001
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0052	E	JF	#	0.0001
	mg/L	AMM-2	WL	03/13/2002	0001	AL		2.660	E	JF	#	0.001
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	1.900	E	JF	#	0.001
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		2.880	E	JF	#	0.001
	mg/L	MW-3	WL	03/13/2002	0001			3.620	E	JF	#	0.001
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.00079	BE	UJF	#	0.0001
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.220	E	JF	#	0.0001
	mg/L	TP-02	WL	03/12/2002	0001	AL		18.500	E	JF	#	0.01
	mg/L	TP-07	WL	03/13/2002	0001	AL		2.660	E	JF	#	0.001
	mg/L	TP-08	WL	03/13/2002	0001	AL		2.590	E	JF	#	0.001
	mg/L	TP-09	WL	03/13/2002	0001	AL		4.140	E	JF	#	0.001
Vanadium	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.0026	E	JFQ	#	0.0001
	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.00061	B	F	#	0.0003
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.00099	B	F	#	0.0003
	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.0146		F	#	0.0003
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.0003	U	F	#	0.0003
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.0003	U	F	#	0.0003
	mg/L	MW-3	WL	03/13/2002	0001			0.0003	U	F	#	0.0003

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA QA	DETECTION LIMIT	UN-CERTAINTY
Vanadium	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0003	U	F	#	0.0003
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.0008	B	F	#	0.0003
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.0003	U	F	#	0.0003
	mg/L	TP-07	WL	03/13/2002	0001	AL		0.0003	U	F	#	0.0003
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.0003	U	F	#	0.0003
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.0003	U	F	#	0.0003
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.0015	U	FQ	#	0.0015
Vinyl chloride	ug/L	ATP-2-S	WL	03/14/2002	N001	AL		10	U	F	#	10
Zinc	mg/L	AMM-1	WL	03/13/2002	0001	AL	B	0.0017	B	F	#	0.0006
	mg/L	AMM-1	WL	03/13/2002	0002	AL	B	0.0028	B	F	#	0.0006
	mg/L	AMM-2	WL	03/13/2002	0001	AL		0.0075	B	F	#	0.0006
	mg/L	AMM-3	WL	03/13/2002	0001	AL	D	0.0039	B	F	#	0.0006
	mg/L	ATP-2-S	WL	03/14/2002	0001	AL		0.0047	B	F	#	0.0006
	mg/L	MW-3	WL	03/13/2002	0001			0.0108	B	F	#	0.0006
	mg/L	N2-12.8	WL	03/14/2002	0001	NR		0.0021	B	UF	#	0.0006
	mg/L	TP-01	WL	03/12/2002	0001	AL		0.0021	B	F	#	0.0006
	mg/L	TP-02	WL	03/12/2002	0001	AL		0.0043	B	F	#	0.0006
	mg/L	TP-07	WL	03/13/2002	0001	AL		0.008	B	F	#	0.0006
	mg/L	TP-08	WL	03/13/2002	0001	AL		0.015	B	F	#	0.0006
	mg/L	TP-09	WL	03/13/2002	0001	AL		0.011	B	F	#	0.0006
	mg/L	W1-4.3	WL	03/14/2002	0001	NR		0.0261	B	FQ	#	0.003

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE MOA01, MOAB

REPORT DATE: 6/14/2002 9:55 am

PARAMETER	UNITS	LOCATION ID	LOCATION TYPE	SAMPLE DATE	ZONE ID	FLOW COMPL	QUALIFIERS: RESULT	DETECTION LIMIT	UN-CERTAINTY
						REL.	LAB DATA QA		

RECORDS: SELECTED FROM USEE200 WHERE site_code='MOA01' AND quality_assurance = TRUE AND (data_validation_qualifiers IS NULL OR data_validation_qualifiers NOT LIKE '%R%' AND data_validation_qualifiers NOT LIKE '%X%') AND DATE_SAMPLED between #3/1/2002# and #3/15/2002#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LOCATION TYPES: WL WELL

ZONES OF COMPLETION:

AL ALLUVIUM

NR NO RECOVERY OF DATA FOR CLASSIFYING

FLOW CODES: B BACKGROUND

D DOWN GRADIENT

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

DATA QUALIFIERS:

- F Low flow sampling method used.
- L Less than 3 bore volumes purged prior to sampling.
- X Location is undefined.

- G Possible grout contamination, pH > 9.
- R Unusable result.

- J Estimated value.
- U Parameter analyzed for but was not detected.

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:26 am

PARAMETER	UNITS	LOCATION ID	SAMPLE DATE	SAMPLE ID	RESULT	QUALIFIERS	DETECTION LIMIT	UN-CERTAINTY
					LAB	DATA QA		
Alkalinity, Total (As CaCO ₃)	mg/L	0201	03/14/2002	0001	129	#	-	-
	mg/L	CR1	03/11/2002	0001	159	#	-	-
	mg/L	CR2	03/12/2002	0001	157	#	-	-
	mg/L	CR2-001	03/12/2002	0001	148	#	-	-
	mg/L	CR2B	03/12/2002	0001	183	#	-	-
	mg/L	CR2B-001	03/12/2002	0001	153	#	-	-
	mg/L	CR3	03/12/2002	0001	149	#	-	-
	mg/L	CR3-001	03/12/2002	0001	140	#	-	-
	mg/L	CR5	03/11/2002	0001	124	#	-	-
	mg/L	CRA	03/12/2002	0001	143	#	-	-
	mg/L	CRC	03/12/2002	0001	143	#	-	-
	mg/L	CRD	03/12/2002	0001	134	#	-	-
	mg/L	CRE	03/11/2002	0001	114	#	-	-
Ammonium	mg/L	0201	03/14/2002	0001	0.284	#	0.0042	-
	mg/L	CR1	03/11/2002	0001	0.0241 B	U	# 0.0042	-
	mg/L	CR2	03/12/2002	0001	0.715	#	0.0042	-
	mg/L	CR2-001	03/12/2002	0001	0.470	#	0.0042	-
	mg/L	CR2B	03/12/2002	0001	51.500	#	0.0042	-
	mg/L	CR2B-001	03/12/2002	0001	7.280	#	0.0042	-
	mg/L	CR3	03/12/2002	0001	3.710	#	0.0042	-
	mg/L	CR3-001	03/12/2002	0001	4.200	#	0.0042	-
	mg/L	CR4	03/12/2002	0001	0.832	#	0.0042	-
	mg/L	CR5	03/11/2002	0001	0.615	#	0.0042	-
	mg/L	CR5	03/11/2002	0002	0.637	#	0.0042	-
	mg/L	CRA	03/12/2002	0001	0.125	#	0.0042	-
	mg/L	CRC	03/12/2002	0001	1.830	#	0.0042	-
	mg/L	CRD	03/12/2002	0001	0.808	#	0.0042	-
	mg/L	CRE	03/11/2002	0001	0.303	#	0.0042	-
Antimony	mg/L	0201	03/14/2002	0001	0.0005 U	#	0.0005	-
	mg/L	CR1	03/11/2002	0001	0.0005 U	#	0.0005	-
	mg/L	CR2	03/12/2002	0001	0.0005 U	#	0.0005	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:26 am

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	SAMPLE: ID	RESULT	QUALIFIERS: LAB	DATA QA	DETECTION LIMIT	UN- CERTAINTY
Antimony	mg/L	CR2-001	03/12/2002	0001	0.0005 U	#	0.0005	-	
	mg/L	CR2B	03/12/2002	0001	0.0005 U	#	0.0005	-	
	mg/L	CR2B-001	03/12/2002	0001	0.0005 U	#	0.0005	-	
	mg/L	CR3	03/12/2002	0001	0.0005 U	#	0.0005	-	
	mg/L	CR3-001	03/12/2002	0001	0.0005 U	#	0.0005	-	
	mg/L	CR4	03/12/2002	0001	0.0005 U	#	0.0005	-	
	mg/L	CR5	03/11/2002	0001	0.0005 U	#	0.0005	-	
	mg/L	CR5	03/11/2002	0002	0.0005 U	#	0.0005	-	
	mg/L	CRA	03/12/2002	0001	0.0005 U	#	0.0005	-	
	mg/L	CRC	03/12/2002	0001	0.0005 U	#	0.0005	-	
Arsenic	mg/L	0201	03/14/2002	0001	0.0006 U	#	0.0006	-	
	mg/L	CR1	03/11/2002	0001	0.0006 U	#	0.0006	-	
	mg/L	CR2	03/12/2002	0001	0.0006 U	#	0.0006	-	
	mg/L	CR2-001	03/12/2002	0001	0.0006 U	#	0.0006	-	
	mg/L	CR2B	03/12/2002	0001	0.0006 U	#	0.0006	-	
	mg/L	CR2B-001	03/12/2002	0001	0.0006 U	#	0.0006	-	
	mg/L	CR3	03/12/2002	0001	0.0006 U	#	0.0006	-	
	mg/L	CR3-001	03/12/2002	0001	0.0006 U	#	0.0006	-	
	mg/L	CR4	03/12/2002	0001	0.0006 U	#	0.0006	-	
	mg/L	CR5	03/11/2002	0001	0.0006 U	#	0.0006	-	
	mg/L	CR5	03/11/2002	0002	0.0006 U	#	0.0006	-	
	mg/L	CRA	03/12/2002	0001	0.0006 U	#	0.0006	-	
	mg/L	CRC	03/12/2002	0001	0.0006 U	#	0.0006	-	
	mg/L	CRD	03/12/2002	0001	0.0006 U	#	0.0006	-	
	mg/L	CRE	03/11/2002	0001	0.0006 U	#	0.0006	-	
Boron	mg/L	0201	03/14/2002	0001	0.0814 B	#	0.0038	-	
	mg/L	CR1	03/11/2002	0001	0.0801 B	#	0.0038	-	
	mg/L	CR2	03/12/2002	0001	0.0648 B	#	0.0038	-	
	mg/L	CR2-001	03/12/2002	0001	0.0776 B	#	0.0038	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:26 am

PARAMETER	UNITS	LOCATION		SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
		ID	DATE	ID			LAB	DATA	QA		
Boron	mg/L	CR2B	03/12/2002	0001		0.104			#	0.0038	-
	mg/L	CR2B-001	03/12/2002	0001		0.0835 B			#	0.0038	-
	mg/L	CR3	03/12/2002	0001		0.0846 B			#	0.0038	-
	mg/L	CR3-001	03/12/2002	0001		0.0805 B			#	0.0038	-
	mg/L	CR4	03/12/2002	0001		0.0767 B			#	0.0038	-
	mg/L	CR5	03/11/2002	0001		0.0873 B			#	0.0038	-
	mg/L	CR5	03/11/2002	0002		0.0794 B			#	0.0038	-
	mg/L	CRA	03/12/2002	0001		0.0761 B			#	0.0038	-
	mg/L	CRC	03/12/2002	0001		0.0795 B			#	0.0038	-
	mg/L	CRD	03/12/2002	0001		0.081 B			#	0.0038	-
	mg/L	CRE	03/11/2002	0001		0.0827 B			#	0.0038	-
Cadmium	mg/L	0201	03/14/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR1	03/11/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR2	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR2-001	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR2B	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR2B-001	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR3	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR3-001	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR4	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR5	03/11/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR5	03/11/2002	0002		0.0002 U			#	0.0002	-
	mg/L	CRA	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CRC	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CRD	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CRE	03/11/2002	0001		0.0002 U			#	0.0002	-
Calcium	mg/L	0201	03/14/2002	0001		81.500			#	0.0662	-
	mg/L	CR1	03/11/2002	0001		83.500			#	0.0662	-
	mg/L	CR2	03/12/2002	0001		81.300			#	0.0662	-
	mg/L	CR2-001	03/12/2002	0001		81.000			#	0.0662	-
	mg/L	CR2B	03/12/2002	0001		98.500			#	0.0662	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:26 am

PARAMETER	UNITS	LOCATION		SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
		ID	DATE	ID			LAB	DATA	QA		
Calcium	mg/L	CR2B-001	03/12/2002	0001		84.500		#		0.0662	-
	mg/L	CR3	03/12/2002	0001		85.300		#		0.0662	-
	mg/L	CR3-001	03/12/2002	0001		84.500		#		0.0662	-
	mg/L	CR4	03/12/2002	0001		83.900		#		0.0662	-
	mg/L	CR5	03/11/2002	0001		84.200		#		0.0662	-
	mg/L	CR5	03/11/2002	0002		84.800		#		0.0662	-
	mg/L	CRA	03/12/2002	0001		82.500		#		0.0662	-
	mg/L	CRC	03/12/2002	0001		84.700		#		0.0662	-
	mg/L	CRD	03/12/2002	0001		84.300		#		0.0662	-
	mg/L	CRE	03/11/2002	0001		83.900		#		0.0662	-
Chloride	mg/L	0201	03/14/2002	0001		146.000		#		0.374	-
	mg/L	CR1	03/11/2002	0001		153.000		#		0.187	-
	mg/L	CR2	03/12/2002	0001		150.000		#		0.187	-
	mg/L	CR2-001	03/12/2002	0001		150.000		#		0.187	-
	mg/L	CR2B	03/12/2002	0001		312.000		#		0.748	-
	mg/L	CR2B-001	03/12/2002	0001		168.000		#		0.374	-
	mg/L	CR3	03/12/2002	0001		237.000		#		0.187	-
	mg/L	CR3-001	03/12/2002	0001		235.000		#		0.187	-
	mg/L	CR4	03/12/2002	0001		202.000		#		0.187	-
	mg/L	CR5	03/11/2002	0001		199.000		#		0.187	-
	mg/L	CR5	03/11/2002	0002		199.000		#		0.187	-
	mg/L	CRA	03/12/2002	0001		151.000		#		0.187	-
	mg/L	CRC	03/12/2002	0001		230.000		#		0.187	-
	mg/L	CRD	03/12/2002	0001		210.000		#		0.187	-
	mg/L	CRE	03/11/2002	0001		175.000		#		0.187	-
Chromium	mg/L	0201	03/14/2002	0001		0.0006 U		#		0.0006	-
	mg/L	CR1	03/11/2002	0001		0.0006 U		#		0.0006	-
	mg/L	CR2	03/12/2002	0001		0.0006 U		#		0.0006	-
	mg/L	CR2-001	03/12/2002	0001		0.0006 U		#		0.0006	-
	mg/L	CR2B	03/12/2002	0001		0.0006 U		#		0.0006	-
	mg/L	CR2B-001	03/12/2002	0001		0.0006 U		#		0.0006	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:26 am

PARAMETER	UNITS	LOCATION ID	SAMPLE DATE	SAMPLE ID	RESULT	QUALIFIERS: LAB	DETECTION LIMIT	UN-CERTAINTY
					QA			
Chromium	mg/L	CR3	03/12/2002	0001	0.0006 U	#	0.0006	-
	mg/L	CR3-001	03/12/2002	0001	0.0006 U	#	0.0006	-
	mg/L	CR4	03/12/2002	0001	0.0006 U	#	0.0006	-
	mg/L	CR5	03/11/2002	0001	0.0006 U	#	0.0006	-
	mg/L	CR5	03/11/2002	0002	0.0006 U	#	0.0006	-
	mg/L	CRA	03/12/2002	0001	0.0006 U	#	0.0006	-
	mg/L	CRC	03/12/2002	0001	0.0006 U	#	0.0006	-
	mg/L	CRD	03/12/2002	0001	0.0006 U	#	0.0006	-
	mg/L	CRE	03/11/2002	0001	0.0006 U	#	0.0006	-
Copper	mg/L	0201	03/14/2002	0001	0.0015 B	#	0.0006	-
	mg/L	CR1	03/11/2002	0001	0.0014 B	#	0.0006	-
	mg/L	CR2	03/12/2002	0001	0.0006 B	#	0.0006	-
	mg/L	CR2-001	03/12/2002	0001	0.0014 B	#	0.0006	-
	mg/L	CR2B	03/12/2002	0001	0.0014 B	#	0.0006	-
	mg/L	CR2B-001	03/12/2002	0001	0.0007 B	#	0.0006	-
	mg/L	CR3	03/12/2002	0001	0.0009 B	#	0.0006	-
	mg/L	CR3-001	03/12/2002	0001	0.0009 B	#	0.0006	-
	mg/L	CR4	03/12/2002	0001	0.0012 B	#	0.0006	-
	mg/L	CR5	03/11/2002	0001	0.0011 B	#	0.0006	-
	mg/L	CR5	03/11/2002	0002	0.001 B	#	0.0006	-
	mg/L	CRA	03/12/2002	0001	0.001 B	#	0.0006	-
	mg/L	CRC	03/12/2002	0001	0.0012 B	#	0.0006	-
	mg/L	CRD	03/12/2002	0001	0.0009 B	#	0.0006	-
	mg/L	CRE	03/11/2002	0001	0.0009 B	#	0.0006	-
Dissolved Oxygen	mg/L	CRE	03/11/2002	N001	45.1	#	-	-
Gross Alpha	pCi/L	0201	03/14/2002	0001	8.71 U	#	8.71	± 5.15
	pCi/L	CR1	03/11/2002	0001	8.7 U	#	8.7	± 5.40
	pCi/L	CR2	03/12/2002	0001	26.01	#	8.52	± 7.49
	pCi/L	CR2-001	03/12/2002	0001	26.39	#	8.53	± 7.53
	pCi/L	CR2B	03/12/2002	0001	136.75 B	J	12.12	± 15.6
	pCi/L	CR2B-001	03/12/2002	0001	20.05	#	9.9	± 7.71
	pCi/L	CR3	03/12/2002	0001	10.33 U	#	10.33	± 6.83

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
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PARAMETER	UNITS	LOCATION	SAMPLE:			QUALIFIERS:	DETECTION	UN-
		ID	DATE	ID	RESULT	LAB DATA QA	LIMIT	CERTANTY
Gross Alpha	pCi/L	CR3-001	03/12/2002	0001	19.72		# 10.93	± 8.25
	pCi/L	CR4	03/12/2002	0001	9.57	U	# 9.57	± 6.09
	pCi/L	CR5	03/11/2002	0001	9.51	U	# 9.51	± 5.99
	pCi/L	CR5	03/11/2002	0002	9.73		# 9.54	± 6.36
	pCi/L	CRA	03/12/2002	0001	70.56		# 8.68	± 10.9
	pCi/L	CRC	03/12/2002	0001	12.72		# 10.06	± 6.99
	pCi/L	CRD	03/12/2002	0001	9.52	U	# 9.52	± 5.94
	pCi/L	CRE	03/11/2002	0001	8.98	U	# 8.98	± 5.20
Gross Beta	pCi/L	0201	03/14/2002	0001	7.97		# 7.13	± 4.49
	pCi/L	CR1	03/11/2002	0001	7.14	U	# 7.14	± 4.39
	pCi/L	CR2	03/12/2002	0001	15.53		# 6.86	± 4.70
	pCi/L	CR2-001	03/12/2002	0001	15.64		# 6.86	± 4.71
	pCi/L	CR2B	03/12/2002	0001	41.94	B U	# 11.05	± 7.86
	pCi/L	CR2B-001	03/12/2002	0001	13.06		# 8.17	± 5.34
	pCi/L	CR3	03/12/2002	0001	13.39		# 8.13	± 5.34
	pCi/L	CR3-001	03/12/2002	0001	18.6		# 8.75	± 5.95
	pCi/L	CR4	03/12/2002	0001	7.61	U	# 7.61	± 4.68
	pCi/L	CR5	03/11/2002	0001	9.81		# 7.6	± 4.85
	pCi/L	CR5	03/11/2002	0002	12.28		# 7.62	± 4.99
	pCi/L	CRA	03/12/2002	0001	31.98		# 7.09	± 5.54
	pCi/L	CRC	03/12/2002	0001	16		# 8.13	± 5.47
	pCi/L	CRD	03/12/2002	0001	11.22		# 7.6	± 4.92
	pCi/L	CRE	03/11/2002	0001	11.84		# 7.14	± 4.69
Iron	mg/L	0201	03/14/2002	0001	0.0112	B U	# 0.001	-
	mg/L	CR1	03/11/2002	0001	0.012	B U	# 0.001	-
	mg/L	CR2	03/12/2002	0001	0.0062	B U	# 0.001	-
	mg/L	CR2-001	03/12/2002	0001	0.0068	B U	# 0.001	-
	mg/L	CR2B	03/12/2002	0001	0.0066	B U	# 0.001	-
	mg/L	CR2B-001	03/12/2002	0001	0.006	B U	# 0.001	-
	mg/L	CR3	03/12/2002	0001	0.0055	B U	# 0.001	-
	mg/L	CR3-001	03/12/2002	0001	0.0076	B U	# 0.001	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:26 am

PARAMETER	UNITS	LOCATION		SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
		ID	DATE	ID			LAB	DATA	QA		
Iron	mg/L	CR4	03/12/2002	0001		0.0079 B	U	#	0.001	-	
	mg/L	CR5	03/11/2002	0001		0.0113 B	U	#	0.001	-	
	mg/L	CR5	03/11/2002	0002		0.0114 B	U	#	0.001	-	
	mg/L	CRA	03/12/2002	0001		0.0067 B	U	#	0.001	-	
	mg/L	CRC	03/12/2002	0001		0.0114 B	U	#	0.001	-	
	mg/L	CRD	03/12/2002	0001		0.0075 B	U	#	0.001	-	
	mg/L	CRE	03/11/2002	0001		0.0091 B	U	#	0.001	-	
Lead	mg/L	0201	03/14/2002	0001		0.0004 B		#	0.0001	-	
	mg/L	CR1	03/11/2002	0001		0.0005 B	U	#	0.0001	-	
	mg/L	CR2	03/12/2002	0001		0.0003 B	U	#	0.0001	-	
	mg/L	CR2-001	03/12/2002	0001		0.0005 B	U	#	0.0001	-	
	mg/L	CR2B	03/12/2002	0001		0.0003 B	U	#	0.0001	-	
	mg/L	CR2B-001	03/12/2002	0001		0.0003 B	U	#	0.0001	-	
	mg/L	CR3	03/12/2002	0001		0.0004 B	U	#	0.0001	-	
	mg/L	CR3-001	03/12/2002	0001		0.0004 B	U	#	0.0001	-	
	mg/L	CR4	03/12/2002	0001		0.0004 B	U	#	0.0001	-	
	mg/L	CR5	03/11/2002	0001		0.0004 B	U	#	0.0001	-	
	mg/L	CR5	03/11/2002	0002		0.0004 B	U	#	0.0001	-	
	mg/L	CRA	03/12/2002	0001		0.0003 B	U	#	0.0001	-	
	mg/L	CRC	03/12/2002	0001		0.0004 B	U	#	0.0001	-	
	mg/L	CRD	03/12/2002	0001		0.0003 B	U	#	0.0001	-	
	mg/L	CRE	03/11/2002	0001		0.0004 B	U	#	0.0001	-	
Lead-210	pCi/L	0201	03/14/2002	0001		1.07 U		#	1.07	± 0.52	
	pCi/L	CR1	03/11/2002	0001		1.04 U		#	1.04	± 0.49	
	pCi/L	CR2	03/12/2002	0001		1.11 U		#	1.11	± 0.52	
	pCi/L	CR2-001	03/12/2002	0001		1.15 U		#	1.15	± 0.53	
	pCi/L	CR2B	03/12/2002	0001		1.18 U		#	1.18	± 0.54	
	pCi/L	CR2B-001	03/12/2002	0001		1.06 U		#	1.06	± 0.51	
	pCi/L	CR3	03/12/2002	0001		1.11 U		#	1.11	± 0.51	
	pCi/L	CR3-001	03/12/2002	0001		1.11 U		#	1.11	± 0.53	
	pCi/L	CR4	03/12/2002	0001		1.17 U		#	1.17	± 0.54	
	pCi/L	CR5	03/11/2002	0001		1.09 U		#	1.09	± 0.51	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:26 am

PARAMETER	UNITS	LOCATION			SAMPLE: ID	RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
		ID	DATE	ID			LAB	DATA	QA		
Lead-210	pCi/L	CR5	03/11/2002	0002	1.11	U	#			1.11	± 0.51
	pCi/L	CRA	03/12/2002	0001	1.14	U	#			1.14	± 0.51
	pCi/L	CRC	03/12/2002	0001	1.15	U	#			1.15	± 0.54
	pCi/L	CRD	03/12/2002	0001	1.1	U	#			1.1	± 0.52
	pCi/L	CRE	03/11/2002	0001	1.08	U	#			1.08	± 0.51
Magnesium	mg/L	0201	03/14/2002	0001	30.100		#	0.0052		-	
	mg/L	CR1	03/11/2002	0001	29.800		#	0.0052		-	
	mg/L	CR2	03/12/2002	0001	29.600		#	0.0052		-	
	mg/L	CR2-001	03/12/2002	0001	29.200		#	0.0052		-	
	mg/L	CR2B	03/12/2002	0001	63.000		#	0.0052		-	
	mg/L	CR2B-001	03/12/2002	0001	34.700		#	0.0052		-	
	mg/L	CR3	03/12/2002	0001	33.800		#	0.0052		-	
	mg/L	CR3-001	03/12/2002	0001	33.000		#	0.0052		-	
	mg/L	CR4	03/12/2002	0001	30.700		#	0.0052		-	
	mg/L	CR5	03/11/2002	0001	31.100		#	0.0052		-	
	mg/L	CR5	03/11/2002	0002	30.700		#	0.0052		-	
	mg/L	CRA	03/12/2002	0001	29.900		#	0.0052		-	
	mg/L	CRC	03/12/2002	0001	32.000		#	0.0052		-	
	mg/L	CRD	03/12/2002	0001	31.000		#	0.0052		-	
	mg/L	CRE	03/11/2002	0001	30.200		#	0.0052		-	
Manganese	mg/L	0201	03/14/2002	0001	0.0286		#	0.0001		-	
	mg/L	CR1	03/11/2002	0001	0.0326		#	0.0001		-	
	mg/L	CR2	03/12/2002	0001	0.0337		#	0.0001		-	
	mg/L	CR2-001	03/12/2002	0001	0.0332		#	0.0001		-	
	mg/L	CR2B	03/12/2002	0001	0.215		#	0.0001		-	
	mg/L	CR2B-001	03/12/2002	0001	0.062		#	0.0001		-	
	mg/L	CR3	03/12/2002	0001	0.0638		#	0.0001		-	
	mg/L	CR3-001	03/12/2002	0001	0.0619		#	0.0001		-	
	mg/L	CR4	03/12/2002	0001	0.0442		#	0.0001		-	
	mg/L	CR5	03/11/2002	0001	0.0388		#	0.0001		-	
	mg/L	CR5	03/11/2002	0002	0.0382		#	0.0001		-	
	mg/L	CRA	03/12/2002	0001	0.0314		#	0.0001		-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
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PARAMETER	UNITS	LOCATION		SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
		ID	DATE	ID			LAB	DATA	QA		
Manganese	mg/L	CRC	03/12/2002	0001		0.0514			#	0.0001	-
	mg/L	CRD	03/12/2002	0001		0.0446			#	0.0001	-
	mg/L	CRE	03/11/2002	0001		0.034			#	0.0001	-
Mercury	mg/L	0201	03/14/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR1	03/11/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR2	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR2-	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR2B	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR2B-	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR3	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR3-	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR4	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR5	03/11/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CR5	03/11/2002	0002		0.0002 U			#	0.0002	-
	mg/L	CRA	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CRC	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CRD	03/12/2002	0001		0.0002 U			#	0.0002	-
	mg/L	CRE	03/11/2002	0001		0.0002 U			#	0.0002	-
Molybdenum	mg/L	0201	03/14/2002	0001		0.0028 B			#	0.0018	-
	mg/L	CR1	03/11/2002	0001		0.0032 B			#	0.0018	-
	mg/L	CR2	03/12/2002	0001		0.0094 B			#	0.0018	-
	mg/L	CR2-	03/12/2002	0001		0.0094 B			#	0.0018	-
	mg/L	CR2B	03/12/2002	0001		0.0563			#	0.0018	-
	mg/L	CR2B-	03/12/2002	0001		0.0146 B			#	0.0018	-
	mg/L	CR3	03/12/2002	0001		0.0059 B	U		#	0.0018	-
	mg/L	CR3-	03/12/2002	0001		0.006 B	U		#	0.0018	-
	mg/L	CR4	03/12/2002	0001		0.0043 B	U		#	0.0018	-
	mg/L	CR5	03/11/2002	0001		0.0047 B	U		#	0.0018	-
	mg/L	CR5	03/11/2002	0002		0.0049 B	U		#	0.0018	-
	mg/L	CRA	03/12/2002	0001		0.0061 B	U		#	0.0018	-
	mg/L	CRC	03/12/2002	0001		0.0058 B	U		#	0.0018	-
	mg/L	CRD	03/12/2002	0001		0.0046 B	U		#	0.0018	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
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PARAMETER	UNITS	LOCATION ID	SAMPLE DATE	SAMPLE ID	RESULT	QUALIFIERS	DETECTION LIMIT	UN-CERTAINTY
					LAB	DATA QA		
Molybdenum	mg/L	CRE	03/11/2002	0001	0.0036 B	#	0.0018	-
Nickel	mg/L	0201	03/14/2002	0001	0.0008 U	#	0.0008	-
	mg/L	CR1	03/11/2002	0001	0.0008 U	#	0.0008	-
	mg/L	CR2	03/12/2002	0001	0.0008 U	#	0.0008	-
	mg/L	CR2-001	03/12/2002	0001	0.0008 U	#	0.0008	-
	mg/L	CR2B	03/12/2002	0001	0.0008 U	#	0.0008	-
	mg/L	CR2B-001	03/12/2002	0001	0.0008 U	#	0.0008	-
	mg/L	CR3	03/12/2002	0001	0.0008 U	#	0.0008	-
	mg/L	CR3-001	03/12/2002	0001	0.0008 U	#	0.0008	-
	mg/L	CR4	03/12/2002	0001	0.0008 U	#	0.0008	-
	mg/L	CR5	03/11/2002	0001	0.0008 U	#	0.0008	-
	mg/L	CR5	03/11/2002	0002	0.0008 U	#	0.0008	-
	mg/L	CRA	03/12/2002	0001	0.0008 U	#	0.0008	-
	mg/L	CRC	03/12/2002	0001	0.0008 U	#	0.0008	-
	mg/L	CRD	03/12/2002	0001	0.0008 U	#	0.0008	-
	mg/L	CRE	03/11/2002	0001	0.0008 U	#	0.0008	-
Nitrate as NO3	mg/L	0201	03/14/2002	0001	2.020	#	0.0305	-
	mg/L	CR1	03/11/2002	0001	1.860	#	0.0305	-
	mg/L	CR2	03/12/2002	0001	2.480	#	0.0305	-
	mg/L	CR2-001	03/12/2002	0001	2.430	#	0.0305	-
	mg/L	CR2B	03/12/2002	0001	15.300	#	0.0305	-
	mg/L	CR2B-001	03/12/2002	0001	4.090	#	0.0305	-
	mg/L	CR3	03/12/2002	0001	2.670	#	0.0305	-
	mg/L	CR3-001	03/12/2002	0001	2.840	#	0.0305	-
	mg/L	CR4	03/12/2002	0001	1.990	#	0.0305	-
	mg/L	CR5	03/11/2002	0001	2.100	#	0.0305	-
	mg/L	CR5	03/11/2002	0002	2.040	#	0.0305	-
	mg/L	CRA	03/12/2002	0001	2.340	#	0.0305	-
	mg/L	CRC	03/12/2002	0001	2.280	#	0.0305	-
	mg/L	CRD	03/12/2002	0001	1.990	#	0.0305	-
	mg/L	CRE	03/11/2002	0001	1.970	#	0.0305	-
Oxidation Reduction Potent mV		0201	03/14/2002	N001	20.6	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
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PARAMETER	UNITS	LOCATION ID	SAMPLE DATE	SAMPLE ID	RESULT	QUALIFIERS	DETECTION LAB	DATA QA	UN-LIMIT	CERTAINTY
Oxidation Reduction Potent	mV	CR1	03/11/2002	N001	-10.8	#	-	-	-	-
	mV	CR2	03/12/2002	N001	98.1	#	-	-	-	-
	mV	CR2-001	03/12/2002	N001	112.5	#	-	-	-	-
	mV	CR2B	03/12/2002	N001	158.7	#	-	-	-	-
	mV	CR2B-001	03/12/2002	N001	149.1	#	-	-	-	-
	mV	CR3	03/12/2002	N001	138.4	#	-	-	-	-
	mV	CR3-001	03/12/2002	N001	139	#	-	-	-	-
	mV	CR4	03/12/2002	N001	14	#	-	-	-	-
	mV	CR5	03/11/2002	N001	143.9	#	-	-	-	-
	mV	CRA	03/12/2002	N001	-8	#	-	-	-	-
	mV	CRC	03/12/2002	N001	109.6	#	-	-	-	-
	mV	CRD	03/12/2002	N001	83.4	#	-	-	-	-
	mV	CRE	03/11/2002	N001	124	#	-	-	-	-
pH	s.u.	0201	03/14/2002	N001	8.71	#	-	-	-	-
	s.u.	CR1	03/11/2002	N001	8.27	#	-	-	-	-
	s.u.	CR2	03/12/2002	N001	8.44	#	-	-	-	-
	s.u.	CR2-001	03/12/2002	N001	8.43	#	-	-	-	-
	s.u.	CR2B	03/12/2002	N001	8.12	#	-	-	-	-
	s.u.	CR2B-001	03/12/2002	N001	8.37	#	-	-	-	-
	s.u.	CR3	03/12/2002	N001	8.38	#	-	-	-	-
	s.u.	CR3-001	03/12/2002	N001	8.37	#	-	-	-	-
	s.u.	CR4	03/12/2002	N001	8.39	#	-	-	-	-
	s.u.	CR5	03/11/2002	N001	8.25	#	-	-	-	-
	s.u.	CRA	03/12/2002	N001	8.35	#	-	-	-	-
	s.u.	CRC	03/12/2002	N001	8.4	#	-	-	-	-
	s.u.	CRD	03/12/2002	N001	8.29	#	-	-	-	-
	s.u.	CRE	03/11/2002	N001	8.38	#	-	-	-	-
Polonium-210	pCi/L	0201	03/14/2002	0001	0.0592 U	#	0.0592	± 0.03		
	pCi/L	CR1	03/11/2002	0001	0.1142	#	0.0519	± 0.04		
	pCi/L	CR2	03/12/2002	0001	0.0629 U	#	0.0629	± 0.03		
	pCi/L	CR2-001	03/12/2002	0001	0.0389 U	#	0.0389	± 0.02		

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
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PARAMETER	UNITS	LOCATION			SAMPLE: ID	RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
		ID	DATE	ID			LAB	DATA	QA		
Polonium-210	pCi/L	CR2B	03/12/2002	0001		0.0661	U		#	0.0661	± 0.04
	pCi/L	CR2B-001	03/12/2002	0001		0.0565	U		#	0.0565	± 0.03
	pCi/L	CR3	03/12/2002	0001		0.0432	U		#	0.0432	± 0.03
	pCi/L	CR3-001	03/12/2002	0001		0.0998	U		#	0.0998	± 0.04
	pCi/L	CR4	03/12/2002	0001		0.0626			#	0.0538	± 0.03
	pCi/L	CR5	03/11/2002	0001		0.0634	U		#	0.0634	± 0.04
	pCi/L	CR5	03/11/2002	0002		0.0695	U		#	0.0695	± 0.04
	pCi/L	CRA	03/12/2002	0001		0.0666	U		#	0.0666	± 0.04
	pCi/L	CRC	03/12/2002	0001		0.0689	U		#	0.0689	± 0.04
	pCi/L	CRD	03/12/2002	0001		0.0764			#	0.0677	± 0.04
Potassium	mg/L	0201	03/14/2002	0001		4.520			#	0.0119	-
	mg/L	CR1	03/11/2002	0001		4.140			#	0.0119	-
	mg/L	CR2	03/12/2002	0001		4.330			#	0.0119	-
	mg/L	CR2-001	03/12/2002	0001		4.230			#	0.0119	-
	mg/L	CR2B	03/12/2002	0001		12.700			#	0.0119	-
	mg/L	CR2B-001	03/12/2002	0001		5.170			#	0.0119	-
	mg/L	CR3	03/12/2002	0001		6.210			#	0.0119	-
	mg/L	CR3-001	03/12/2002	0001		6.080			#	0.0119	-
	mg/L	CR4	03/12/2002	0001		5.040			#	0.0119	-
	mg/L	CR5	03/11/2002	0001		4.900			#	0.0119	-
	mg/L	CR5	03/11/2002	0002		4.840			#	0.0119	-
	mg/L	CRA	03/12/2002	0001		4.300			#	0.0119	-
	mg/L	CRC	03/12/2002	0001		5.590			#	0.0119	-
	mg/L	CRD	03/12/2002	0001		5.130			#	0.0119	-
	mg/L	CRE	03/11/2002	0001		4.490			#	0.0119	-
Radium-226	pCi/L	0201	03/14/2002	0001	0.13	U			#	0.13	± 0.08
	pCi/L	CR1	03/11/2002	0001	0.23				#	0.09	± 0.07
	pCi/L	CR2	03/12/2002	0001	0.16				#	0.09	± 0.06
	pCi/L	CR2-001	03/12/2002	0001	0.19				#	0.09	± 0.07
	pCi/L	CR2B	03/12/2002	0001	0.22				#	0.1	± 0.07

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
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PARAMETER	UNITS	LOCATION		SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
		ID	DATE	ID			LAB	DATA	QA		
Radium-226	pCi/L	CR2B-001	03/12/2002	0001		0.16			#	0.09	± 0.06
	pCi/L	CR3	03/12/2002	0001		0.2			#	0.09	± 0.07
	pCi/L	CR3-001	03/12/2002	0001		0.17			#	0.09	± 0.07
	pCi/L	CR4	03/12/2002	0001		0.26			#	0.09	± 0.08
	pCi/L	CR5	03/11/2002	0001		0.15			#	0.09	± 0.07
	pCi/L	CR5	03/11/2002	0002		0.13			#	0.09	± 0.06
	pCi/L	CRA	03/12/2002	0001		0.18			#	0.09	± 0.06
	pCi/L	CRC	03/12/2002	0001		0.23			#	0.09	± 0.07
	pCi/L	CRD	03/12/2002	0001		0.22			#	0.09	± 0.07
	pCi/L	CRE	03/11/2002	0001		0.17			#	0.09	± 0.07
Radium-228	pCi/L	0201	03/14/2002	0001		0.87	U		#	0.87	± 0.51
	pCi/L	CR1	03/11/2002	0001		0.91	U		#	0.91	± 0.54
	pCi/L	CR2	03/12/2002	0001		0.92	U		#	0.92	± 0.54
	pCi/L	CR2-001	03/12/2002	0001		0.94	U		#	0.94	± 0.57
	pCi/L	CR2B	03/12/2002	0001		0.97	U		#	0.97	± 0.58
	pCi/L	CR2B-001	03/12/2002	0001		0.91	U		#	0.91	± 0.53
	pCi/L	CR3	03/12/2002	0001		0.98	U		#	0.98	± 0.57
	pCi/L	CR3-001	03/12/2002	0001		0.96	U		#	0.96	± 0.57
	pCi/L	CR4	03/12/2002	0001		0.98	U		#	0.98	± 0.57
	pCi/L	CR5	03/11/2002	0001		0.92	U		#	0.92	± 0.55
	pCi/L	CR5	03/11/2002	0002		0.96	U		#	0.96	± 0.57
	pCi/L	CRA	03/12/2002	0001		0.88	U		#	0.88	± 0.52
	pCi/L	CRC	03/12/2002	0001		0.94	U		#	0.94	± 0.55
	pCi/L	CRD	03/12/2002	0001		0.88	U		#	0.88	± 0.52
	pCi/L	CRE	03/11/2002	0001		0.93	U		#	0.93	± 0.55
Selenium	mg/L	0201	03/14/2002	0001		0.0044 B			#	0.0003	-
	mg/L	CR1	03/11/2002	0001		0.0043 B			#	0.0003	-
	mg/L	CR2	03/12/2002	0001		0.0038 B			#	0.0003	-
	mg/L	CR2-001	03/12/2002	0001		0.0042 B			#	0.0003	-
	mg/L	CR2B	03/12/2002	0001		0.0043 B			#	0.0003	-
	mg/L	CR2B-001	03/12/2002	0001		0.0043 B			#	0.0003	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
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PARAMETER	UNITS	LOCATION			SAMPLE ID	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
		ID	DATE	LAB			DATA	QA			
Selenium	mg/L	CR3	03/12/2002	0001	00042 B		#		0.0003	-	
	mg/L	CR3-001	03/12/2002	0001	0.0042 B		#		0.0003	-	
	mg/L	CR4	03/12/2002	0001	0.0042 B		#		0.0003	-	
	mg/L	CR5	03/11/2002	0001	0.0044 B		#		0.0003	-	
	mg/L	CR5	03/11/2002	0002	0.0044 B		#		0.0003	-	
	mg/L	CRA	03/12/2002	0001	0.0045 B		#		0.0003	-	
	mg/L	CRC	03/12/2002	0001	0.0042 B		#		0.0003	-	
	mg/L	CRD	03/12/2002	0001	0.0042 B		#		0.0003	-	
Silver	mg/L	0201	03/14/2002	0001	0.0001 U		#		0.0001	-	
	mg/L	CR1	03/11/2002	0001	0.0001 U		#		0.0001	-	
	mg/L	CR2	03/12/2002	0001	0.0001 U		#		0.0001	-	
	mg/L	CR2-001	03/12/2002	0001	0.0001 U		#		0.0001	-	
	mg/L	CR2B	03/12/2002	0001	0.0001 U		#		0.0001	-	
	mg/L	CR2B-001	03/12/2002	0001	0.0001 U		#		0.0001	-	
	mg/L	CR3	03/12/2002	0001	0.0001 U		#		0.0001	-	
	mg/L	CR3-001	03/12/2002	0001	0.0001 U		#		0.0001	-	
	mg/L	CR4	03/12/2002	0001	0.0001 U		#		0.0001	-	
	mg/L	CR5	03/11/2002	0001	0.0001 U		#		0.0001	-	
	mg/L	CR5	03/11/2002	0002	0.0001 U		#		0.0001	-	
	mg/L	CRA	03/12/2002	0001	0.0001 U		#		0.0001	-	
	mg/L	CRC	03/12/2002	0001	0.0001 U		#		0.0001	-	
Sodium	mg/L	CRD	03/12/2002	0001	0.0001 U		#		0.0001	-	
	mg/L	CRE	03/11/2002	0001	0.0001 U		#		0.0001	-	
	mg/L	0201	03/14/2002	0001	125.000		#		0.0042	-	
	mg/L	CR1	03/11/2002	0001	123.000		#		0.0042	-	
	mg/L	CR2	03/12/2002	0001	126.000		#		0.0042	-	
	mg/L	CR2-001	03/12/2002	0001	123.000		#		0.0042	-	
	mg/L	CR2B	03/12/2002	0001	341.000		#		0.042	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
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PARAMETER	UNITS	LOCATION		SAMPLE: ID	DATE	RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
		ID	DATE				LAB	DATA	QA		
Sodium	mg/L	CR3-001	03/12/2002	0001		173.000			#	0.0042	-
	mg/L	CR4	03/12/2002	0001		155.000			#	0.0042	-
	mg/L	CR5	03/11/2002	0001		149.000			#	0.0042	-
	mg/L	CR5	03/11/2002	0002		150.000			#	0.0042	-
	mg/L	CRA	03/12/2002	0001		127.000			#	0.0042	-
	mg/L	CRC	03/12/2002	0001		168.000			#	0.0042	-
	mg/L	CRD	03/12/2002	0001		156.000			#	0.0042	-
	mg/L	CRE	03/11/2002	0001		136.000			#	0.0042	-
Specific Conductance	umhos/cm	0201	03/14/2002	N001		1252			#	-	-
	umhos/cm	CR1	03/11/2002	N001		1238			#	-	-
	umhos/cm	CR2	03/12/2002	N001		1256			#	-	-
	umhos/cm	CR2-001	03/12/2002	N001		1249			#	-	-
	umhos/cm	CR2B	03/12/2002	N001		2238			#	-	-
	umhos/cm	CR2B-001	03/12/2002	N001		1184			#	-	-
	umhos/cm	CR3	03/12/2002	N001		1564			#	-	-
	umhos/cm	CR3-001	03/12/2002	N001		1606			#	-	-
	umhos/cm	CR4	03/12/2002	N001		1434			#	-	-
	umhos/cm	CR5	03/11/2002	N001		1405			#	-	-
	umhos/cm	CRA	03/12/2002	N001		1245			#	-	-
	umhos/cm	CRC	03/12/2002	N001		1525			#	-	-
	umhos/cm	CRD	03/12/2002	N001		1421			#	-	-
	umhos/cm	CRE	03/11/2002	N001		1323			#	-	-
Strontium	mg/L	0201	03/14/2002	0001		0.951			#	0.0001	-
	mg/L	CR1	03/11/2002	0001		0.965			#	0.0001	-
	mg/L	CR2	03/12/2002	0001		0.958			#	0.0001	-
	mg/L	CR2-001	03/12/2002	0001		0.940			#	0.0001	-
	mg/L	CR2B	03/12/2002	0001		1.470			#	0.0001	-
	mg/L	CR2B-001	03/12/2002	0001		1.030			#	0.0001	-
	mg/L	CR3	03/12/2002	0001		1.060			#	0.0001	-
	mg/L	CR3-001	03/12/2002	0001		1.040			#	0.0001	-
	mg/L	CR4	03/12/2002	0001		0.992			#	0.0001	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:26 am

PARAMETER	UNITS	LOCATION		SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
		ID	DATE	ID			LAB	DATA	QA		
Strontium	mg/L	CR5	03/11/2002	0001		1.000			#	0.0001	-
	mg/L	CR5	03/11/2002	0002		1.000			#	0.0001	-
	mg/L	CRA	03/12/2002	0001		0.976			#	0.0001	-
	mg/L	CRC	03/12/2002	0001		1.020			#	0.0001	-
	mg/L	CRD	03/12/2002	0001		0.992			#	0.0001	-
	mg/L	CRE	03/11/2002	0001		0.979			#	0.0001	-
Sulfate	mg/L	0201	03/14/2002	0001		277.000			#	0.41	-
	mg/L	CR1	03/11/2002	0001		273.000			#	0.205	-
	mg/L	CR2	03/12/2002	0001		277.000			#	0.205	-
	mg/L	CR2-	03/12/2002	0001		277.000			#	0.205	-
	mg/L	CR2B	03/12/2002	0001		783.000			#	0.82	-
	mg/L	CR2B-	03/12/2002	0001		350.000			#	0.41	-
	mg/L	CR3	03/12/2002	0001		316.000			#	0.205	-
	mg/L	CR3-	03/12/2002	0001		315.000			#	0.205	-
	mg/L	CR4	03/12/2002	0001		272.000			#	0.205	-
	mg/L	CR5	03/11/2002	0001		283.000			#	0.205	-
	mg/L	CR5	03/11/2002	0002		281.000			#	0.205	-
	mg/L	CRA	03/12/2002	0001		275.000			#	0.205	-
	mg/L	CRC	03/12/2002	0001		297.000			#	0.205	-
	mg/L	CRD	03/12/2002	0001		282.000			#	0.205	-
	mg/L	CRE	03/11/2002	0001		274.000			#	0.205	-
Temperature	C	0201	03/14/2002	N001		9.46			#	-	-
	C	CR1	03/11/2002	N001		7.71			#	-	-
	C	CR2	03/12/2002	N001		9.12			#	-	-
	C	CR2-	03/12/2002	N001		8.71			#	-	-
	C	CR2B	03/12/2002	N001		11.64			#	-	-
	C	CR2B-	03/12/2002	N001		9.99			#	-	-
	C	CR3	03/12/2002	N001		7.68			#	-	-
	C	CR3-	03/12/2002	N001		7.85			#	-	-
	C	CR4	03/12/2002	N001		6.3			#	-	-
	C	CR5	03/11/2002	N001		7.7			#	-	-
	C	CRA	03/12/2002	N001		8.54			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:26 am

PARAMETER	UNITS	LOCATION		SAMPLE: ID	RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
		ID	DATE			LAB	DATA	QA		
Temperature	C	CRC	03/12/2002	N001	6.95			#	-	-
	C	CRD	03/12/2002	N001	6.09			#	-	-
	C	CRE	03/11/2002	N001	7.7			#	-	-
Thallium	mg/L	0201	03/14/2002	0001	0.0001 U			#	0.0001	-
	mg/L	CR1	03/11/2002	0001	0.0001 B	U		#	0.0001	-
	mg/L	CR2	03/12/2002	0001	0.0001 U			#	0.0001	-
	mg/L	CR2-001	03/12/2002	0001	0.0001 U			#	0.0001	-
	mg/L	CR2B	03/12/2002	0001	0.0001 B	U		#	0.0001	-
	mg/L	CR2B-001	03/12/2002	0001	0.0001 B	U		#	0.0001	-
	mg/L	CR3	03/12/2002	0001	0.0001 B	U		#	0.0001	-
	mg/L	CR3-001	03/12/2002	0001	0.0001 U			#	0.0001	-
	mg/L	CR4	03/12/2002	0001	0.0001 U			#	0.0001	-
	mg/L	CR5	03/11/2002	0001	0.0001 B	U		#	0.0001	-
	mg/L	CR5	03/11/2002	0002	0.0001 U			#	0.0001	-
	mg/L	CRA	03/12/2002	0001	0.0001 U			#	0.0001	-
	mg/L	CRC	03/12/2002	0001	0.0001 U			#	0.0001	-
	mg/L	CRD	03/12/2002	0001	0.0001 U			#	0.0001	-
	mg/L	CRE	03/11/2002	0001	0.0001 B	U		#	0.0001	-
Thorium-230	pCi/L	0201	03/14/2002	0001	1.6	U		#	1.56	-
	pCi/L	CR1	03/11/2002	0001	1.6	U		#	1.56	-
	pCi/L	CR2	03/12/2002	0001	1.6	U		#	1.56	-
	pCi/L	CR2-001	03/12/2002	0001	1.6	U		#	1.56	-
	pCi/L	CR2B	03/12/2002	0001	1.6	U		#	1.56	-
	pCi/L	CR2B-001	03/12/2002	0001	1.6	U		#	1.56	-
	pCi/L	CR3	03/12/2002	0001	1.6	U		#	1.56	-
	pCi/L	CR3-001	03/12/2002	0001	1.6	U		#	1.56	-
	pCi/L	CR4	03/12/2002	0001	1.6	U		#	1.56	-
	pCi/L	CR5	03/11/2002	0001	1.6	U		#	1.56	-
	pCi/L	CR5	03/11/2002	0002	1.6	U		#	1.56	-
	pCi/L	CRA	03/12/2002	0001	1.6	U		#	1.56	-
	pCi/L	CRC	03/12/2002	0001	1.6	U		#	1.56	-
	pCi/L	CRD	03/12/2002	0001	1.6	U		#	1.56	-
	pCi/L	CRE	03/11/2002	0001	1.6	U		#	1.56	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:26 am

PARAMETER	UNITS	LOCATION ID	SAMPLE DATE	ID	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
						LAB	DATA	QA		
Thorium-230	pCi/L	CRE	03/11/2002	0001	1.6	U		#	1.56	-
Total Dissolved Solids	mg/L	0201	03/14/2002	0001	825			#	10	-
	mg/L	CR1	03/11/2002	0001	830			#	10	-
	mg/L	CR2	03/12/2002	0001	783			#	10	-
	mg/L	CR2-001	03/12/2002	0001	785			#	10	-
	mg/L	CR2B	03/12/2002	0001	1540			#	10	-
	mg/L	CR2B-001	03/12/2002	0001	927			#	10	-
	mg/L	CR3	03/12/2002	0001	985			#	10	-
	mg/L	CR3-001	03/12/2002	0001	978			#	10	-
	mg/L	CR4	03/12/2002	0001	885			#	10	-
	mg/L	CR5	03/11/2002	0001	890			#	10	-
	mg/L	CR5	03/11/2002	0002	890			#	10	-
	mg/L	CRA	03/12/2002	0001	805			#	10	-
	mg/L	CRC	03/12/2002	0001	945			#	10	-
	mg/L	CRD	03/12/2002	0001	885			#	10	-
	mg/L	CRE	03/11/2002	0001	857			#	10	-
Turbidity	NTU	0201	03/14/2002	N001	21			#	-	-
	NTU	CR1	03/11/2002	N001	20.3			#	-	-
	NTU	CR2	03/12/2002	N001	27.2			#	-	-
	NTU	CR2-001	03/12/2002	N001	15.7			#	-	-
	NTU	CR2B	03/12/2002	N001	11.5			#	-	-
	NTU	CR2B-001	03/12/2002	N001	10.1			#	-	-
	NTU	CR3	03/12/2002	N001	22.5			#	-	-
	NTU	CR3-001	03/12/2002	N001	13.8			#	-	-
	NTU	CR4	03/12/2002	N001	18.4			#	-	-
	NTU	CR5	03/11/2002	N001	14.3			#	-	-
	NTU	CRA	03/12/2002	N001	12.2			#	-	-
	NTU	CRC	03/12/2002	N001	14.2			#	-	-
	NTU	CRD	03/12/2002	N001	15.7			#	-	-
	NTU	CRE	03/11/2002	N001	14.4			#	-	-
Uranium	mg/L	0201	03/14/2002	0001	0.0073 E	J	#	0.0001	-	
	mg/L	CR1	03/11/2002	0001	0.0058 E	J	#	0.0001	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:26 am

PARAMETER	UNITS	LOCATION		SAMPLE		RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
		ID	DATE	ID			LAB	DATA	QA		
Uranium	mg/L	CR2	03/12/2002	0001		0.040	E	J	#	0.0001	-
	mg/L	CR2-001	03/12/2002	0001		0.0395	E	J	#	0.0001	-
	mg/L	CR2B	03/12/2002	0001		0.139	E	J	#	0.0001	-
	mg/L	CR2B-001	03/12/2002	0001		0.0358	E	J	#	0.0001	-
	mg/L	CR3	03/12/2002	0001		0.0259	E	J	#	0.0001	-
	mg/L	CR3-001	03/12/2002	0001		0.025	E	J	#	0.0001	-
	mg/L	CR4	03/12/2002	0001		0.0118	E	J	#	0.0001	-
	mg/L	CR5	03/11/2002	0001		0.010	E	J	#	0.0001	-
	mg/L	CR5	03/11/2002	0002		0.010	E	J	#	0.0001	-
	mg/L	CRA	03/12/2002	0001		0.0931	E	J	#	0.0001	-
	mg/L	CRC	03/12/2002	0001		0.0183	E	J	#	0.0001	-
	mg/L	CRD	03/12/2002	0001		0.0115	E	J	#	0.0001	-
	mg/L	CRE	03/11/2002	0001		0.0077	E	J	#	0.0001	-
Vanadium	mg/L	0201	03/14/2002	0001		0.0007	B		#	0.0003	-
	mg/L	CR1	03/11/2002	0001		0.0007	B		#	0.0003	-
	mg/L	CR2	03/12/2002	0001		0.0011	B		#	0.0003	-
	mg/L	CR2-001	03/12/2002	0001		0.0013	B		#	0.0003	-
	mg/L	CR2B	03/12/2002	0001		0.0008	B		#	0.0003	-
	mg/L	CR2B-001	03/12/2002	0001		0.0009	B		#	0.0003	-
	mg/L	CR3	03/12/2002	0001		0.0007	B		#	0.0003	-
	mg/L	CR3-001	03/12/2002	0001		0.0008	B		#	0.0003	-
	mg/L	CR4	03/12/2002	0001		0.0011	B		#	0.0003	-
	mg/L	CR5	03/11/2002	0001		0.0007	B		#	0.0003	-
	mg/L	CR5	03/11/2002	0002		0.0006	B		#	0.0003	-
	mg/L	CRA	03/12/2002	0001		0.0019	B		#	0.0003	-
	mg/L	CRC	03/12/2002	0001		0.0007	B		#	0.0003	-
	mg/L	CRD	03/12/2002	0001		0.0006	B		#	0.0003	-
	mg/L	CRE	03/11/2002	0001		0.0007	B		#	0.0003	-
Zinc	mg/L	0201	03/14/2002	0001		0.004	B		#	0.0006	-
	mg/L	CR1	03/11/2002	0001		0.005	B		#	0.0006	-
	mg/L	CR2	03/12/2002	0001		0.0028	B		#	0.0006	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:26 am

PARAMETER	UNITS	LOCATION		SAMPLE: ID	RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
		ID	DATE			LAB	DATA	QA		
Zinc	mg/L	CR2-001	03/12/2002	0001	0.0038 B		#		0.0006	-
	mg/L	CR2B	03/12/2002	0001	0.0031 B		#		0.0006	-
	mg/L	CR2B-001	03/12/2002	0001	0.0025 B		#		0.0006	-
	mg/L	CR3	03/12/2002	0001	0.0027 B		#		0.0006	-
	mg/L	CR3-001	03/12/2002	0001	0.0022 B		#		0.0006	-
	mg/L	CR4	03/12/2002	0001	0.0026 B		#		0.0006	-
	mg/L	CR5	03/11/2002	0001	0.0026 B		#		0.0006	-
	mg/L	CR5	03/11/2002	0002	0.0025 B		#		0.0006	-
	mg/L	CRA	03/12/2002	0001	0.003 B		#		0.0006	-
	mg/L	CRC	03/12/2002	0001	0.0036 B		#		0.0006	-
	mg/L	CRD	03/12/2002	0001	0.0025 B		#		0.0006	-
	mg/L	CRE	03/11/2002	0001	0.0025 B		#		0.0006	-

RECORDS: SELECTED FROM USEE800 WHERE site_code='MOA01' AND quality_assurance = TRUE AND (data_validation_qualifiers IS NULL OR data_validation_qualifiers NOT LIKE '%R%' AND data_validation_qualifiers NOT LIKE '%X%') AND DATE_SAMPLED between #3/1/2002# and #3/15/2002#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

DATA QUALIFIERS:

- | | |
|----------------------------------|--|
| F Low flow sampling method used. | G Possible grout contamination, pH > 9. |
| J Estimated value. | L Less than 3 bore volumes purged prior to sampling. |
| R Unusable result. | U Parameter analyzed for but was not detected. |
| X Location is undefined. | |

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

BLANKS REPORT (USEE810) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:47 am

PARAMETER	UNITS	LOCATION ID	SAMPLE DATE	SAMPLE ID	SAMPLE TYPE	RESULT	QUALIFIERS:	DETECTIO N	UN-CERTAINTY
							LAB DATA QA		
Ammonium	mg/L	0999	03/15/2002	0001	E	0.0177	B	#	0.0042
	mg/L	0999	03/15/2002	0002	E	0.0187	B	#	0.0042
Antimony	mg/L	0999	03/15/2002	0001	E	0.0005	U	#	0.0005
	mg/L	0999	03/15/2002	0002	E	0.0005	U	#	0.0005
Arsenic	mg/L	0999	03/15/2002	0001	E	0.0006	U	#	0.0006
	mg/L	0999	03/15/2002	0002	E	0.0006	U	#	0.0006
Boron	mg/L	0999	03/15/2002	0001	E	0.0038	U	#	0.0038
	mg/L	0999	03/15/2002	0002	E	0.0038	U	#	0.0038
Cadmium	mg/L	0999	03/15/2002	0001	E	0.0002	U	#	0.0002
	mg/L	0999	03/15/2002	0002	E	0.0002	U	#	0.0002
Calcium	mg/L	0999	03/15/2002	0001	E	0.0662	U	#	0.0662
	mg/L	0999	03/15/2002	0002	E	0.0662	U	#	0.0662
Chloride	mg/L	0999	03/15/2002	0001	E	0.193	B	#	0.0374
	mg/L	0999	03/15/2002	0002	E	0.244	B	#	0.0374
Chromium	mg/L	0999	03/15/2002	0001	E	0.0006	U	#	0.0006
	mg/L	0999	03/15/2002	0002	E	0.0006	U	#	0.0006
Copper	mg/L	0999	03/15/2002	0001	E	0.0006	U	#	0.0006
	mg/L	0999	03/15/2002	0002	E	0.0006	U	#	0.0006
Gross Alpha	pCi/L	0999	03/15/2002	0001	E	2.67	U	#	2.67 ± 1.31
	pCi/L	0999	03/15/2002	0002	E	1.83	UB J	#	1.83 ± 0.93
Gross Beta	pCi/L	0999	03/15/2002	0001	E	3.93	U	#	3.93 ± 2.30
	pCi/L	0999	03/15/2002	0002	E	2.74	UB	#	2.74 ± 1.63
Iron	mg/L	0999	03/15/2002	0001	E	0.0011	B U	#	0.001 -
	mg/L	0999	03/15/2002	0002	E	0.001	U	#	0.001 -

BLANKS REPORT (USEE810) FOR SITE MOA01, MOAB

REPORT DATE: 6/14/2002 9:47 am

PARAMETER	UNITS	LOCATION ID	SAMPLE DATE	SAMPLE ID	SAMPLE TYPE	RESULT	QUALIFIERS:			DETECTIO N	UN- CERTAINTY
							LAB	DATA	QA		
Lead	mg/L	0999	03/15/2002	0001	E	0.00042	B		#	0.0001	-
	mg/L	0999	03/15/2002	0002	E	0.00044	B		#	0.0001	-
Lead-210	pCi/L	0999	03/15/2002	0001	E	1.09	U		#	1.09	± 0.52
	pCi/L	0999	03/15/2002	0002	E	1.05	U		#	1.05	± 0.49
Magnesium	mg/L	0999	03/15/2002	0001	E	0.0554	B		#	0.0052	-
	mg/L	0999	03/15/2002	0002	E	0.0118	B	U	#	0.0052	-
Manganese	mg/L	0999	03/15/2002	0001	E	0.00073	B	U	#	0.0001	-
	mg/L	0999	03/15/2002	0002	E	0.00058	B	U	#	0.0001	-
Mercury	mg/L	0999	03/15/2002	0001	E	0.0002	U		#	0.0002	-
	mg/L	0999	03/15/2002	0002	E	0.0002	U		#	0.0002	-
Molybdenum	mg/L	0999	03/15/2002	0001	E	0.0018	U		#	0.0018	-
	mg/L	0999	03/15/2002	0002	E	0.0018	U		#	0.0018	-
Nickel	mg/L	0999	03/15/2002	0001	E	0.0008	U		#	0.0008	-
	mg/L	0999	03/15/2002	0002	E	0.0008	U		#	0.0008	-
Nitrate as NO ₃	mg/L	0999	03/15/2002	0001	E	0.0305	U		#	0.0305	-
	mg/L	0999	03/15/2002	0002	E	0.0305	U		#	0.0305	-
Polonium-210	pCi/L	0999	03/15/2002	0001	E	0.0421	U		#	0.0421	± 0.03
	pCi/L	0999	03/15/2002	0002	E	0.0392	U		#	0.0392	± 0.03
Potassium	mg/L	0999	03/15/2002	0001	E	0.125			#	0.0119	-
	mg/L	0999	03/15/2002	0002	E	0.101			#	0.0119	-
Radium-226	pCi/L	0999	03/15/2002	0001	E	0.1	U		#	0.1	± 0.06
	pCi/L	0999	03/15/2002	0002	E	0.1	U		#	0.1	± 0.06
Radium-228	pCi/L	0999	03/15/2002	0001	E	0.76	U		#	0.76	± 0.44
	pCi/L	0999	03/15/2002	0002	E	0.77	U		#	0.77	± 0.45

BLANKS REPORT (USEE810) FOR SITE MOA01, MOAB

REPORT DATE: 6/14/2002 9:48 am

PARAMETER	UNITS	LOCATION ID	SAMPLE DATE	SAMPLE ID	SAMPLE TYPE	RESULT	QUALIFIERS:	DETECTIO N	UN-CERTAINTY
							LAB DATA QA		
Selenium	mg/L	0999	03/15/2002	0001	E	0.0003	U	#	0.0003
	mg/L	0999	03/15/2002	0002	E	0.0003	U	#	0.0003
Silver	mg/L	0999	03/15/2002	0001	E	0.0001	U	#	0.0001
	mg/L	0999	03/15/2002	0002	E	0.0001	U	#	0.0001
Sodium	mg/L	0999	03/15/2002	0001	E	1.280		#	0.0042
	mg/L	0999	03/15/2002	0002	E	0.888	B U	#	0.0042
Strontium	mg/L	0999	03/15/2002	0001	E	0.0017	B	#	0.0001
	mg/L	0999	03/15/2002	0002	E	0.00071	B U	#	0.0001
Sulfate	mg/L	0999	03/15/2002	0001	E	0.153	B	#	0.041
	mg/L	0999	03/15/2002	0002	E	0.161	B	#	0.041
Thallium	mg/L	0999	03/15/2002	0001	E	0.0001	U	#	0.0001
	mg/L	0999	03/15/2002	0002	E	0.0001	U	#	0.0001
Thorium-230	pCi/L	0999	03/15/2002	0001	E	1.6	U	#	1.56
	pCi/L	0999	03/15/2002	0002	E	1.6	U	#	1.56
Total Dissolved Solids	mg/L	0999	03/15/2002	0001	E	10	U	#	10
	mg/L	0999	03/15/2002	0002	E	10	U	#	10
Uranium	mg/L	0999	03/15/2002	0001	E	0.00061	BE	UJ	#
	mg/L	0999	03/15/2002	0002	E	0.00034	BE	UJ	#
Vanadium	mg/L	0999	03/15/2002	0001	E	0.0003	U	#	0.0003
	mg/L	0999	03/15/2002	0002	E	0.0003	U	#	0.0003
Zinc	mg/L	0999	03/15/2002	0001	E	0.0024	B U	#	0.0006
	mg/L	0999	03/15/2002	0002	E	0.0071	B	#	0.0006

BLANKS REPORT (USEE810) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:48 am

PARAMETER	UNITS	LOCATION ID	SAMPLE DATE	SAMPLE ID	SAMPLE TYPE	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	DETECTIO N	UN-CERTAINTY
-----------	-------	-------------	-------------	-----------	-------------	--------	-----------------	------------------	------------	--------------

RECORDS: SELECTED FROM USEE810 WHERE site_code='MOA01' AND quality_assurance = TRUE AND (data_validation_qualifiers IS NULL OR data_validation_qualifiers NOT LIKE '%R%' AND data_validation_qualifiers NOT LIKE '%X%') AND DATE_SAMPLED between #3/1/2002# and #3/15/2002#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

SAMPLE TYPES: E EQUIPMENT BLANK

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

DATA QUALIFIERS:

- | | | |
|--|---|--|
| F Low flow sampling method used. | G Possible grout contamination, pH > 9. | J Estimated value. |
| L Less than 3 bore volumes purged prior to sampling. | R Unusable result. | U Parameter analyzed for but was not detected. |
| X Location is undefined. | | |

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

WATER LEVELS

STATIC GROUND WATER LEVELS (USEE700) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:47 am

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT NGVD)	MEASUREMENT		DEPTH FROM TOP OF CASING (FT)	GROUND WATER ELEVATION (FT NGVD)	WATER LEVEL FLAG
			DATE	TIME			
0401		3969.60	03/14/2002	16:49	15.83	3953.77	
0402		3968.63	03/14/2002	16:46	15.47	3953.16	
0403		3968.95	03/14/2002	16:44	16.13	3952.82	
0404		3968.30	03/14/2002	16:52	14.01	3954.29	
0405		3968.47	03/14/2002	16:54	14.30	3954.17	
0406		3969.91	03/14/2002	16:57	15.50	3954.41	
0407		3969.09	03/14/2002	16:42	16.76	3952.33	
0408		3969.17	03/14/2002	16:48	15.39	3953.78	
0409		3969.03	03/14/2002	16:53	14.85	3954.18	
A-1		4045.46	03/14/2002	15:20	-	-	D
AMM-1	B	3972.02	03/13/2002	12:49	16.18	3955.84	
AMM-2		3967.74	03/13/2002	13:02	13.17	3954.57	
AMM-3	D	3967.69	03/13/2002	12:38	12.33	3955.36	
ATP-1-D		3970.73	03/13/2002	15:45	18.47	3952.26	
ATP-1-ID		3970.87	03/13/2002	15:46	19.35	3951.52	
ATP-1-IS		3971.00	03/13/2002	15:47	20.13	3950.87	
ATP-1-S		3971.14	03/13/2002	15:47	19.65	3951.49	
ATP-2-D		3967.05	03/14/2002	14:22	14.40	3952.65	
ATP-2-S		3967.04	03/14/2002	14:20	11.88	3955.16	
ATP-3		4000.05	03/14/2002	15:08	40.25	3959.80	
B-16		4044.01	03/14/2002	15:23	-	-	D
B-4 (17)		4044.63	03/14/2002	15:12	-	-	D
EE-2		4057.19	03/14/2002	15:18	60.25	3996.94	
EE-3		4058.82	03/14/2002	15:17	60.87	3997.95	
MW-1-R		3964.35	03/14/2002	15:36	9.38	3954.97	
MW-2-R		3966.70	03/14/2002	15:45	11.90	3954.80	
MW-3		3969.21	03/13/2002	15:25	14.43	3954.78	
N2-12.8		-	03/14/2002	10:27	3.13	-3.13	

STATIC GROUND WATER LEVELS (USEE700) FOR SITE MOA01, MOAB
 REPORT DATE: 6/14/2002 9:47 am

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT NGVD)	MEASUREMENT		DEPTH FROM TOP OF CASING (FT)	GROUND WATER ELEVATION (FT NGVD)	WATER LEVEL FLAG
			DATE	TIME			
NE-MILL		3981.45	03/13/2002	13:29	26.60	3954.85	
OW-1		3966.94	03/14/2002		11.83	3955.11	
OW-2		3966.85	03/14/2002		11.78	3955.07	
OW-3		3966.20	03/14/2002		10.97	3955.23	
OW-4		3965.50	03/14/2002		10.25	3955.25	
PW-13		4059.08	03/14/2002	15:14		-	D
PW-8		4059.09	03/14/2002	15:25	33.32	4025.77	
SMI-MW01		3968.32	03/13/2002	16:32	13.55	3954.77	
SMI-PW01		3968.45	03/11/2002		13.78	3954.67	
SMI-PW02		3967.48	03/12/2002		13.29	3954.19	
SMI-PW03		3975.04	03/13/2002	13:37	18.58	3956.46	
SMI-PZ3D2		3975.13	03/13/2002	13:38	19.20	3955.93	
SMI-PZ3M		3975.23	03/13/2002	13:40	18.85	3956.38	
SMI-PZ3S		3975.03	03/13/2002	13:40	18.76	3956.27	
TH-25		3990.04	03/14/2002	16:13	31.57	3958.47	
TP-01		3969.39	03/12/2002	15:33	14.75	3954.64	
TP-02		3975.55	03/12/2002	16:25	21.09	3954.46	
TP-07		3965.72	03/13/2002	08:20	12.24	3953.48	
TP-08		3966.57	03/13/2002	09:02	12.48	3954.09	
TP-09		3967.38	03/13/2002	09:55	13.02	3954.36	
TP-11		3967.51	03/13/2002	13:20	12.73	3954.78	
TP-17		3963.69	03/14/2002		12.06	3951.63	
TP-18		3963.63	03/14/2002	16:33	12.87	3950.76	
TP-19		3962.17	03/14/2002	16:28	12.15	3950.02	
TP-20		3967.55	03/14/2002	17:05	15.55	3952.00	
TP-21		3964.64	03/14/2002	16:20	8.45	3956.19	
UNK1		3966.10	03/13/2002	13:25	-	-	D
UNK2		3974.64	03/13/2002	13:27	-	-	D

STATIC GROUND WATER LEVELS (USEE700) FOR SITE MOA01, MOAB
REPORT DATE: 6/14/2002 9:47 am

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT NGVD)	MEASUREMENT		DEPTH FROM TOP OF CASING (FT)	GROUND WATER ELEVATION (FT NGVD)	WATER LEVEL FLAG
			DATE	TIME			
UNKNOWN A	-		03/14/2002		13.10	-13.10	
W1-4.3	-		03/14/2002	09:27	11.10	-11.10	

RECORDS: SELECTED FROM USEE700 WHERE site_code='MOA01' AND LOG_DATE between #3/1/2002# and #3/15/2002#

FLOW CODES: B BACKGROUND

D DOWN GRADIENT

WATER LEVEL FLAGS:

D Dry

SAMPLING AND ANALYSIS WORK ORDER AND TRIP REPORT

CONTRACT NO.: DE-AC13-96GJ87335
TASK ORDER NO.: MAC02-05
CONTROL NO.: 3100-T02-0367

March 4, 2002

Project Manager
Department of Energy
Grand Junction Office
2597 B3/4 Road
Grand Junction, CO 81503
ATTN: Donald Metzler

SUBJECT: Contract No. DE-AC13-96GJ87335—March 2002 Sampling at Moab, Utah

Dear Mr. Metzler:

Attached are maps and tables specifying the sampling locations and analytes for monitoring at the Moab, Utah, UMTRA site. Water quality data will be collected from monitor wells and near the shore of the Colorado River at this site as part of the routine UMTRA Ground Water sampling scheduled to begin the week of March 11, 2002. Additional samples will be collected from selected monitor wells at the Matheson Preserve; additional river samples will be collected at the bottom of the main channel at selected locations. Depth to water, depth of sample, and flow velocity at each surface location will be documented.

The following lists show the monitor wells, piezometers, and surface locations that will be sampled during this monitoring event.

Monitor Wells (filtered)

AMM-1	AMM-2	AMM-3	ATP-2-S	MW-3
N2 (Matheson Preserve)		W1 (Matheson Preserve)		

Piezometers (filtered)

TP-01	TP-02	TP-03	TP-07	TP-08	TP-09
-------	-------	-------	-------	-------	-------

Surface Water Locations (filtered)

CR1	CR2-001	CR3-001	CR5	CRB	CRD
CR2	CR3	CR4	CRA	CRC	CRE

QA/QC samples will be collected as directed in the *Sampling and Analysis Plan for the UMTRA Ground Water Project*. Samples collected for alkalinity will be both filtered only. Access agreements for the Moab site are in review and expected to be completed by the start of fieldwork. Water level information will be collected from all wells at the Moab site. Monitor well inspections will be conducted and documented to confirm the status of all sampled wells.

MoA 19.32597 B3/4 ROAD
GRAND JUNCTION, COLORADO 81503
(PHONE: 970 248-6000) (FAX: 970 248-6040)

Donald Metzler
March 4, 2002
Page 2
Control No.: 3100-T02-0367

If you have any questions, please call me at extension 6059 or Dave Traub at extension 6557.

Sincerely,



Sam Marutzky
Project Manager

SJM/lcg/ld

cc w/o att: K. Miller
Contract File (J. Dearborn)
cc w/att: C. Bahrke
R. Chessmore
K. Karp
D. Traub
Project Record File MOAB ATM ~~7.33~~ thru T. Smith

TCS 4/02

**Sampling Frequencies for Locations at
Moab, Utah**

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Monitor Wells						
AMM-1		X				
AMM-2		X				
AMM-3		X				
ATP-2-S		X				
MW-3		X				
N2 (Matheson Preserve)		3/02 only				
W1 (Matheson Preserve)		3/02 only				
Piezometers						
TP-01		X				
TP-02		X				
TP-03		X				
TP-07		X				
TP-08		X				
TP-09		X				
Surface Water Locations						
CR1		X				
CR2		X				
CR2-001		X				
CR3		X				
CR3-001		X				
CR4		X				
CR5		X				
CRA		X				
CRB		X				
CRB-001		X				
CRC		X				
CRD		X				
CRE		X				

Constituent Sampling Breakdown

Site	MOAB	
Analyte	Ground Water	Surface Water
Approx No. Samples/yr	30	10
<i>Field Measurements</i>		
Alkalinity	X	X
Dissolved Oxygen		
Redox Potential	X	X
pH	X	X
Specific Conductance	X	X
Turbidity	X	
Temperature	X	X
<i>Laboratory Measurements</i>		
Aluminum		
Ammonium	X	X
Antimony	X	X
Arsenic	X	X
Barium	X	X
Beryllium		
Bromide		
Cadmium	X	X
Calcium	X	X
Chloride	X	X
Chromium	X	X
Cobalt		
Copper	X	X
Fluoride		
Gamma Spec		
Gross Alpha	X	X
Gross Beta	X	X
Iron	X	X
Lead	X	X
Lead-210	X	X
Magnesium	X	X
Manganese	X	X
Mercury	X	X
Molybdenum	X	X

Site	MOAB	
Analyte	Ground Water	Surface Water
<i>Laboratory Measurements (Continued)</i>		
Nickel	X	X
Nickel-63		
Nitrate	X	X
PCBs		
Phosphate		
Polonium-210	X	X
Potassium	X	X
Radium-226	X	X
Radium-228	X	X
Selenium	X	X
Silica		
Silver	X	X
Sodium	X	X
Strontium	X	X
Sulfate	X	X
Sulfide		
Thallium	X	X
Thorium-230	X	X
Tin		
Total Dissolved Solids	X	X
Total Organic Carbon		
Uranium	X	X
Uranium-234, -238		
Vanadium	X	X
VOCs	ATP-2-S only	
Zinc	X	X
Total No. of Analytes	35	35

Note: All analyte samples are considered filtered unless stated otherwise. The total number of analytes does not include the field parameters.

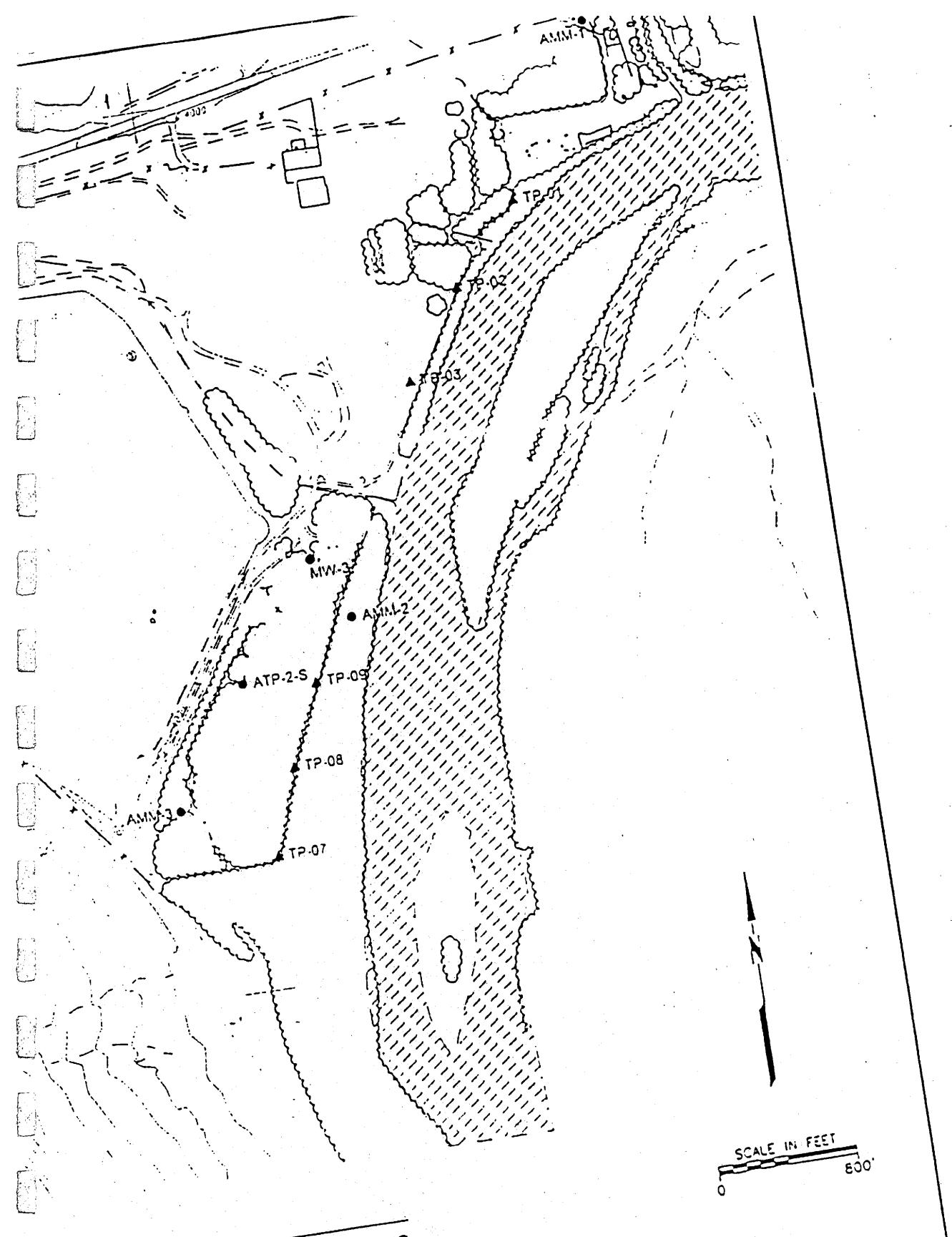


FIGURE 2
GROUNDWATER
SAMPLING LOCATIONS

Date:	APRIL 2000
Project:	100054
File:	GRNDOLOC.dwg

HERD MILLER

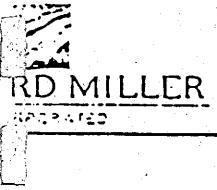
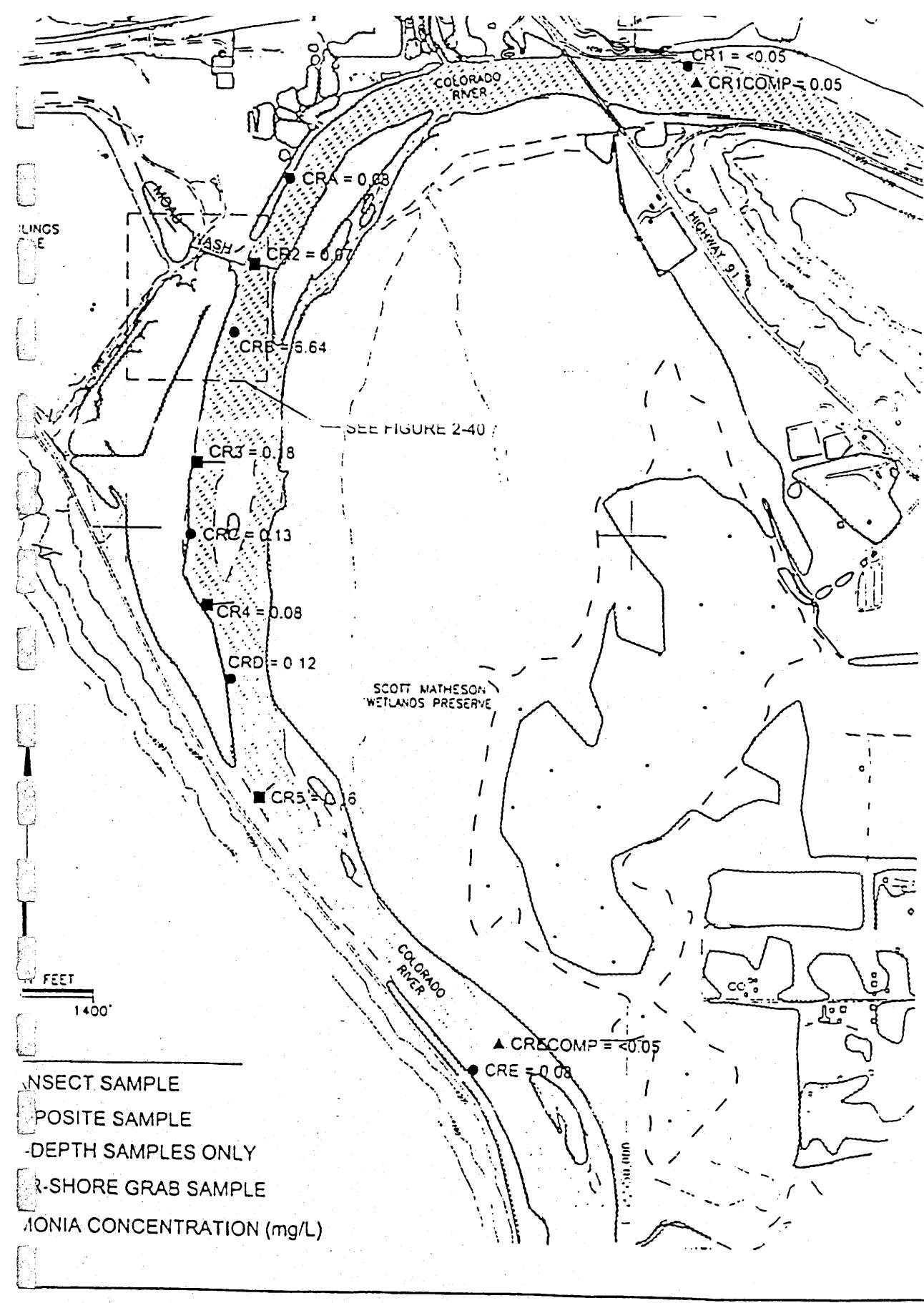
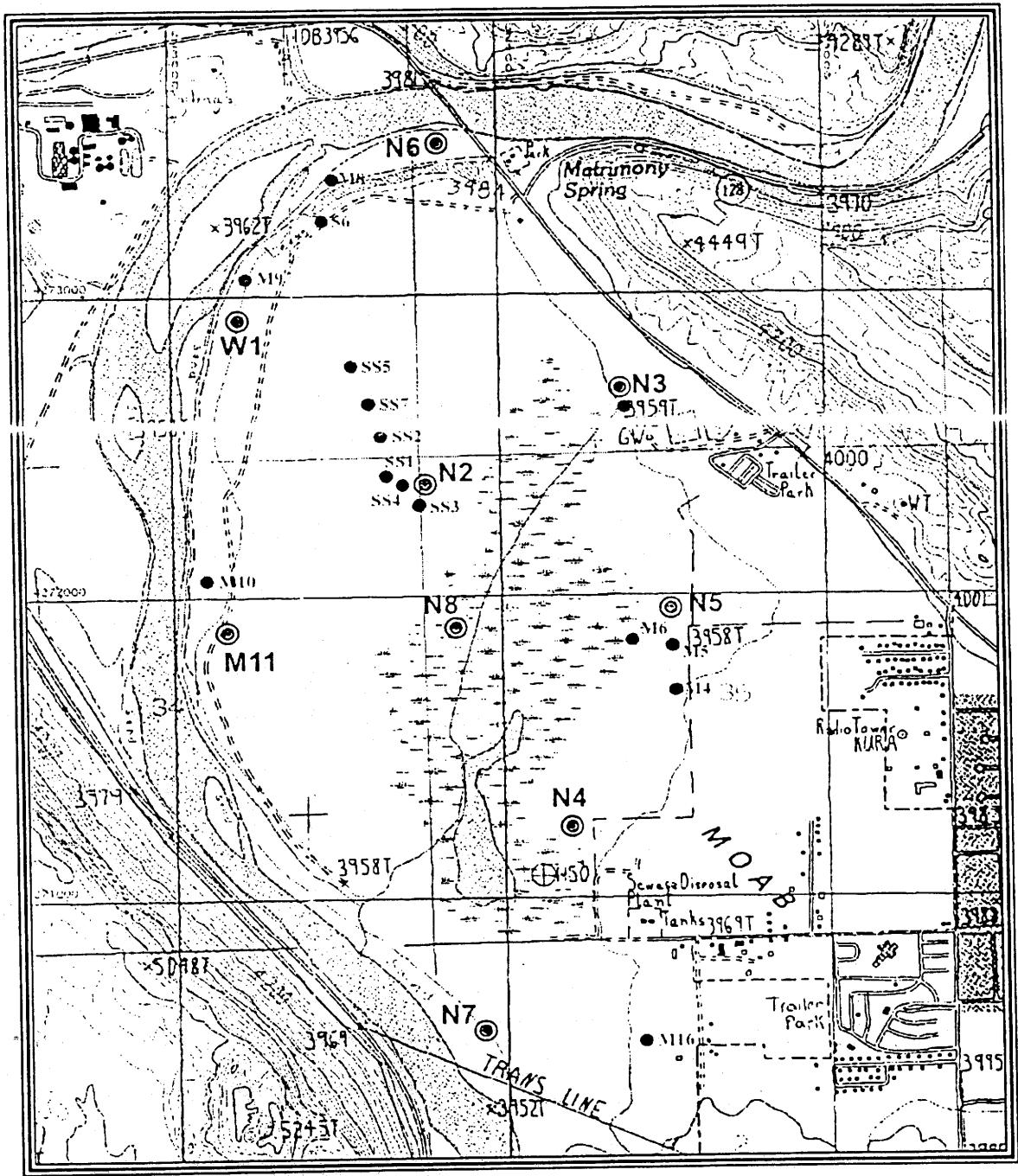


FIGURE 2-39
**APRIL 2000 SURFACE WATER
SAMPLING LOCATIONS - AMMONIA**

Date: APRIL 2001
Project: 10055412000APR
File: SW-APR-AMM.dwg





CONTRACT NO.: DE-AC13-96GJ87335
TASK ORDER NO.: MAC02-16
CONTROL NO.: 3100-N/A

MEMO TO: Sam Marutzky
FROM: D. Traub *JKL for*
DATE: March 28, 2002
SUBJECT: Moab Site Water Sampling Trip Report
Site: Moab, Utah

Dates of Sampling Event: March 11 through March 14, 2002

Team Members: Dave Traub and Tom Maveal

Trip Summary: Samples and data were collected from 14 surface and 12 ground water locations at the Moab millsite and adjacent areas. Water levels were measured at all site wells. Two of the 12 wells sampled are located at the Matheson Preserve on the south side of the Colorado River adjacent to the site. One additional surface water location was added approximately one mile west of Location CRE.

Locations Not Sampled / Reason: Piezometer TP-03 was not sampled as it no longer exists.

Field Variance: None

Water Level Measurements: Water level measurements were taken on all wells at the site. Several wells on top of the pile were not checked due to contamination issues; these wells were dry last sampling round. These will be checked next time with equipment that can be dedicated to the site and left in the contamination-zone. Other nearby wells were dry.

SITE CODE	LOCATION CODE	LOG DATE	LOG TIME	DTW	COMMENTS
MOA01	TP-11	03/13/2002	13:20:00	12.73	
MOA01	UNK1	03/13/2002	13:25:00		DRY
MOA01	UNK2	03/13/2002	13:27:00		DRY
MOA01	NE-MILL	03/13/2002	13:29:00	26.6	
MOA01	SMI-PW03	03/13/2002	13:37:00	18.58	
MOA01	SMI-PZ3D2	03/13/2002	13:38:00	19.2	
MOA01	SMI-PZ3M	03/13/2002	13:40:00	18.85	
MOA01	SMI-PZ3S	03/13/2002	13:40:00	18.76	

Sam Marutzky
March 28, 2002

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Control No.: 3100-N/A

SITE CODE	LOCATION CODE	LOG DATE	LOG TIME	DTW	COMMENTS
MOA01	ATP-1-D	03/13/2002	15:45:00	18.47	
MOA01	ATP-1-ID	03/13/2002	15:46:00	19.35	
MOA01	ATP-1-S	03/13/2002	15:47:00	19.65	
MOA01	ATP-1-IS	03/13/2002	15:47:00	20.13	
MOA01	MW-1	03/13/2002	16:32:00	13.55	
MOA01	ATP-2-D	03/14/2002	14:22:00	14.4	
MOA01	OW-1	03/14/2002		11.83	
MOA01	OW-2	03/14/2002		11.78	
MOA01	OW-3	03/14/2002		10.97	
MOA01	OW-4	03/14/2002		10.25	
MOA01	TP-01	03/12/2002	15:33:00	14.75	
MOA01	TP-02	03/12/2002	16:25:00	21.09	
MOA01	TP-07	03/13/2002	8:20:00	12.24	
MOA01	TP-08	03/13/2002	9:02:00	12.48	
MOA01	TP-09	03/13/2002	9:55:00	13.02	
MOA01	AMM-1	03/13/2002	12:49:00	16.18	
MOA01	AMM-2	03/13/2002	13:02:00	13.17	
MOA01	AMM-3	03/13/2002	12:38:00	12.33	
MOA01	MW-3	03/13/2002	15:25:00	14.43	
MOA01	W1	03/14/2002	9:27:00	11.1	
MOA01	N2-21	03/14/2002	10:27:00	3.13	
MOA01	402	03/14/2002	16:46:00	15.47	
MOA01	408	03/14/2002	16:48:00	15.39	
MOA01	401	03/14/2002	16:49:00	15.83	
MOA01	404	03/14/2002	16:52:00	14.01	
MOA01	409	03/14/2002	16:53:00	14.85	
MOA01	405	03/14/2002	16:54:00	14.3	
MOA01	406	03/14/2002	16:57:00	15.5	
MOA01	TP-20	03/14/2002	17:05:00	15.55	
MOA01	ATP-3	03/14/2002	15:08:00	40.25	
MOA01	B-4 (17)	03/14/2002	15:12:00		DRY
MOA01	PW-13	03/14/2002	15:14:00		DRY
MOA01	EE-3	03/14/2002	15:17:00	60.87	
MOA01	EE-2	03/14/2002	15:18:00	60.25	

SITE CODE	LOCATION CODE	LOG DATE	LOG TIME	DTW	COMMENTS
MOA01	A-1	03/14/2002	15:20:00		DRY
MOA01	B-16	03/14/2002	15:23:00		DRY
MOA01	PW-8	03/14/2002	15:25:00	33.32	
MOA01	MW-1R	03/14/2002	15:36:00	9.38	
MOA01	UNKNOWN A	03/14/2002		13.1	
MOA01	MW-2-R	03/14/2002	15:45:00	11.9	
MOA01	TH-25	03/14/2002	16:13:00	31.57	
MOA01	TP-21	03/14/2002	16:20:00	8.45	
MOA01	TP-19	03/14/2002	16:28:00	12.15	
MOA01	TP-18	03/14/2002	16:33:00	12.87	
MOA01	TP-17	03/14/2002		12.06	
MOA01	407	03/14/2002	16:42:00	16.76	
MOA01	403	03/14/2002	16:44:00	16.13	
MOA01	ATP-2-S	03/14/2002	14:20:00	11.88	

Well Inspection Summary: Well inspections were conducted on all sampled wells. Many of the piezometers are in poor condition and poorly protected. None of the wells inside the site are clearly marked.

Quality Control Sample Cross Reference: The following are the false identifications assigned to the quality control samples:

Ticket Number	False Loc.	True Loc.	Sample Type
NDP 754	1000	CR5	Surface water sample dup.
NDP 771	1001	AMM-1	Groundwater sample dup
NDP 729	1002	@ GJO	120 V pump Equipment Blank
NDP 730	1003	@ GJO	12V pump Equipment Blank.

Requisition Numbers Assigned: The requisition number is 17880.

Corrective Action: None

Equipment: Wells were sampled using the micropurge procedure. All wells were sampled using a peristaltic pump with tubing installed in each well such that the intake was located in the screened interval. Well W-1 on the Matheson site was very slow to recover; no radioactive isotope samples were collected due to the extremely slow recovery rate. Surface water samples also were collected using a peristaltic pump to filter the samples.

Sam Marutzky
March 28, 2002
Page 4

Control No.: 3100-N/A

Location Specific Information:

Surface Water Samples				
Location	Date Sampled	Sample Starting Depth	Velocity	Comments
CR1	3/11/02	8"	Slow	At boat ramp, just off concrete
CR2	3/12/02	3"	Still	1.5 ft. from shore, 3" deep
CR2-001	3/12/02	8"	Slow	4 ft. from shore, 8" deep
CR3	3/12/02	3"	Still	8 in. from shore, 3" deep
CR3-001	3/12/02	8"	Slow	4 ft. from shore, 8" deep
CR4	3/12/02	12"	Very slow	4 ft. from shore, 12" deep, 110 ft E of stake.
CR5	3/11/02	12"	Strong	2 ft. from shore, 12" deep
CRA	3/12/02	5"	Slow	3 ft. from shore, 15 ft from bank, 5" deep
CR2B	3/12/02	2"	Very slow	2" deep, 100 ft. E of stake, many stagnant pools, lot of salts on rocks. Stake has both CR2B and CRB written on it.
CR2B-001	3/12/02	4"	Slow	30 ft SE of CR2B loc. where current is stronger. Full current is 30 ft. further E
CRC	3/12/02	8"	Very slow	6 ft. from shore, 8" deep
CRD	3/12/02	6"	Slow	3 ft. from shore, 6" deep
CRE	3/11/02	8"		3 ft. from shore, 8" deep
201	3/14/02	1.5 ft	Slow	3 ft. from shore, 18" deep

Ground Water Samples			
Location	Date Sampled	Sample ID	Comments
TP-01	3/12/02	NDP 765	
TP-02	3/12/02	NDP 767	
TP-03	This well can not be located		
TP-07	3/13/02	NDP 766	
TP-08	3/13/02	NDP 768	
TP-09	3/13/02	NDP 769	
AMM-1	3/13/02	NDP 770	
AMM-2	3/13/02	NDP 772	
AMM-3	3/13/02	NDP 771	
MW-3	3/13/02	NDP 774	
W-1	3/14/02	NDP 775	Matheson well, 15.2 ft deep, soft bottom, purged dry. No rad samples.
N2-12.8	3/14/02	NDP 726	Matheson well, 35.18 ft deep
ATP-2S	3/14/02	NDP 728	VOCs sampled with bailer

Regulatory: None.

Site Issues: All work inside the perimeter fence must be done in full PPE. Because the only vehicles allowed on site are the two mules, work progress is slow. A minimum amount of equipment and supplies were taken into the site as everything had to be frisked upon exit.

Sam Marutzky
March 28, 2002
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Control No.: 3100-N/A

During the spring and summer sampling events it will probably be safer to collect the Colorado River samples from a raft.

A new piezometer should be installed to replace the missing TP-03 that has evidently been destroyed.

Additional Action Required/Taken: None.

DT/lcg

Distribution:

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Project Record File MOA 19.03 thru T. Smith